CFD-31

SERVICE MANUAL

US Model

- The CFD-31is similar to the earlier CFD-30 (BLACK TYPE : US Model).
- Refer to the CFD-20/30 SERVICE MANUAL for the information not contained in this service manual
- The following are used only in the CFD-31.

PARTS LIST (The difference between CFD-31 and CFD-30)

Page on CFD-20/30 SERVICE MANUAL	Ref. No.	Part No.	Description
37	2	3-914-494-11	HOLDER, CASSETTE
	5	X-3368-515-1	CABINET (FRONT) ASSY
	SP101	1-504-308-11	SPEAKER (10cm)
	SP301		
39	119	3-914-495-11	CABINET (REAR)
52	–	* 3-914-973-01	INDIVIDUAL CARTON
	–	3-758-844-21	MANUAL, INSTRUCTION (ENGLISH)

NOTE :

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

CD RADIO CASSETTE-CORDER

SONY®

Sony Corporation
General Audio Group

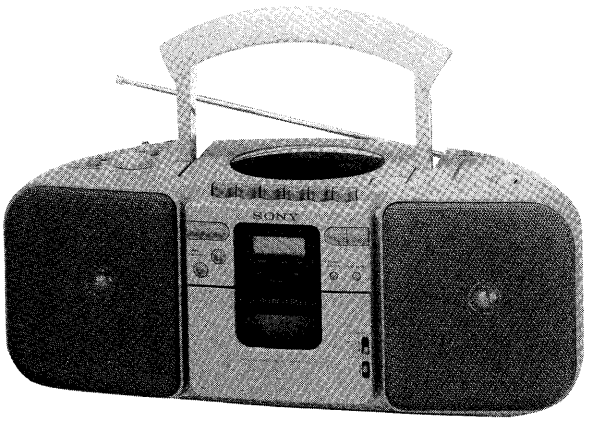
9-959-463-11

English
94D0431-1D
Printed in Japan
© 1994.4
Published by Audio Sector Quality Assurance Dept.

CFD-20/30

SERVICE MANUAL

US Model
Canadian Model
AEP Model
CFD-20
US Model
E Model
CFD-30



This photo is CFD-30 and white type.

SPECIFICATIONS

CD Section	Model Name Using Similar Mechanism	CFD-58/58L/58S
	Optical Pickup Block Type	KSM-2101BAM
Cassette Deck Section	Model Name Uaing Similar Mechanism	NEW
	Tape Transpot Mechanism Type	MF-CFD-20
		MF-CFD-30

Audio Power Specifications (US model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
With 3.0-ohm loads, both channels driven from 150-15,000 Hz: rated 2.3 W per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

Other Specifications

CD player section

System: Compact disc digital audio system

Laser diode properties: Material: GaAlAs
Wavelength 780 nm
Emission duration: Continuous
Laser output: less than 44.6 μW
This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.

Frequency response: 20-20.000 Hz ±2 dB

Wow and flutter: Below measurable limit

Radio section

Frequency range:
FM : 87.6-108MHz (US, CND, E model)
: 87.6-107MHz (AEP model)
: 87.5-108MHz (IT model)
AM : 530-1,710kHz (US, CND, E model)
: 531-1,602kHz (AEP model)
: 526.5-1,606.5kHz (IT model)
Intermediate frequency
FM : 10.7MHz
AM : 455kHz

Antennas: FM: Telescopic antenna
AM: Built-in ferrite bar antenna

Tape recorder section and general

Recording system: 4-track 2-channel stereo

Frequency response: 70-10,000 Hz
(with TYPE I (NORMAL) cassette)

Speaker: Full-range speakers: 10 cm dia., cone type

Power output: 2.3W + 2.3W (at 3.0 ohms, 10%) harmonic distortion) (US, CND model)
4.6W (at 3.0 ohms, 10% harmonic distortion) (E model)
5W (2.5W + 2.5W) (AEP, IT model)

Input: Mixing microphone input jack (minijack)
Sensitivity 2.5 mV
For low impedance microphone

Output: Headphones jack (stereo minijack)
For 16-68 ohms impedance headphones

Power requirements: 120V AC, 60Hz (US, CND, E model)
220-230V AC, 50Hz (AEP, IT model)
DC 9V, 6 size D (R20) batteries.

Power consumption: 25 W

Battery life (hours)

	FM recording	Tape playing	CD playing
Sony SUM-1 (NS)	approx. 9	approx. 6	approx. 2.5
Sony Alkaline AM 1 (N)	approx. 16.5	approx. 11	approx. 4.5

Dimensions: Approx. 410 × 170 × 235 mm (w/h/d)
(Approx. 16¼ × 6¾ × 9⅜ inches)
incl. projecting parts and controls

Weight: Approx. 4.2 kg, incl. batteries
(Approx. 9 lb 5 oz)

Supplied accessory: AC power cord (1)

Design and specifications subject to change without notice.

Note:
CND : Canadian model
IT : Italian model

使用時は添付資料も参照のこと
Refer to the additional documents.

CD RADIO CASSETTE-CORDER

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

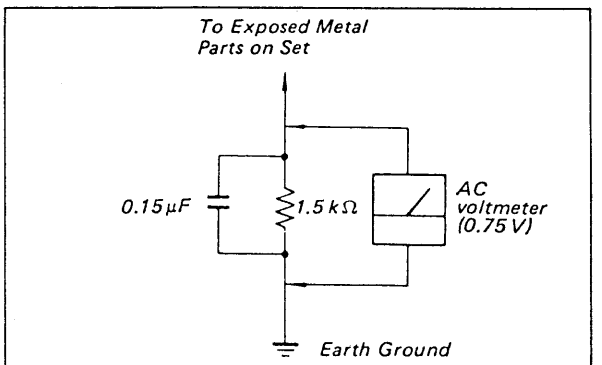
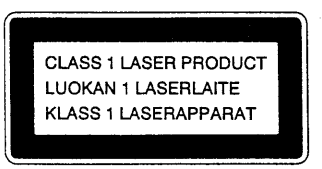


Fig. A. Using an AC voltmeter to check AC leakage.

TABLE OF CONTENTS

Section	Title	Page
1. SERVICING NOTES		3
2. GENERAL		4
3. DISSASAMBLY		6
4. MECHANICAL ADJUSTMENTS		10
5. ELECTRICAL ADJUSTMENTS		
5-1.	Tape Recorder Section	10
5-2.	Radio Section	12
5-3.	CD Section	14
5-4.	Reference	16
6. DIAGRAMS		
6-1.	Block Diagrams	19
6-2.	Printed Wiring Boards	23
6-3.	Circuit Boards Location	27
6-4.	Schematic Diagrams —Audio Section—	27
6-5.	Semiconductor Read Layouts	28
6-6.	IC Block Diagrams	29
6-7.	Schematic Diagrams —CD Section—	31
6-8.	Schematic Diagrams —Tuner Section—	35
7. EXPLODED VIEWS		
7-1.	Front Cabinet section	37
7-2.	PC Boards Location	38
7-3.	CD Section	39
7-4.	Mechanism Deck Section-1 (CFD-20)	40
7-5.	Mechanism Deck Section-2 (CFD-20)	41
7-6.	Mechanism Deck Section-1 (CFD-30)	42
7-7.	Mechanism Deck Section-2 (CFD-30)	43
7-8.	Optical Pickup Block	44
8. ELECTRICAL PARTS LIST		45



This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

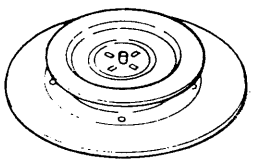
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25 cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

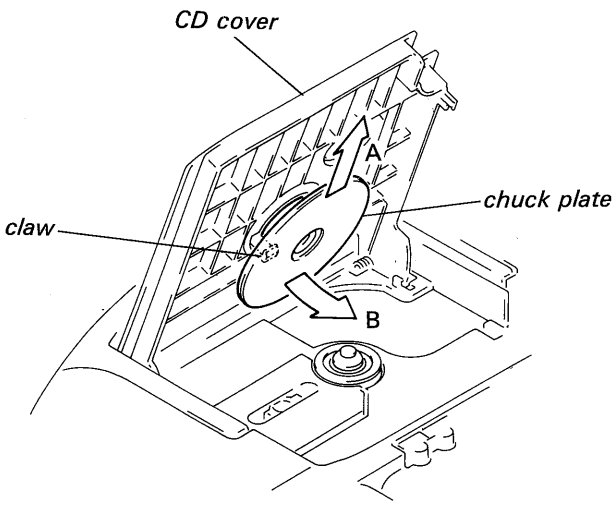
- Code number of Chuck Plate Jig: X-4918-255-1



Removing the chuck plate

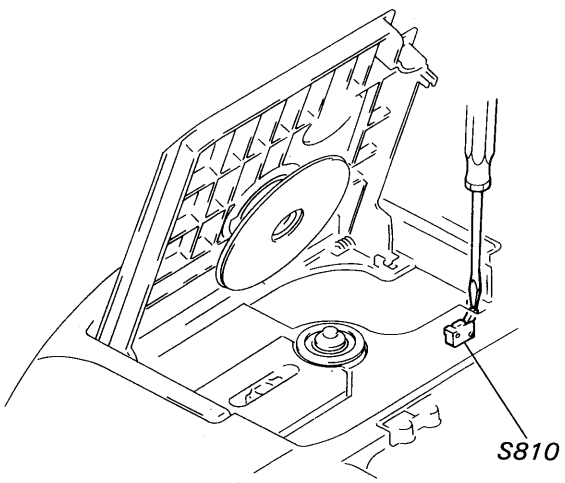
The chuck plate of this unit can be removed and used as a chuck plate jig.

1. Pull the chuck plate in the direction A.
2. Press the claw of the CD cover, and remove the chuck plate in direction B.



LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make Function switch to CD position with no disc inserted.
2. Open the lid for CD.
3. Turn on S810 as following figure.
4. Press ▶ key.
5. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus serarch.



SAFETY-RELATED COMPONENT WARNING!!

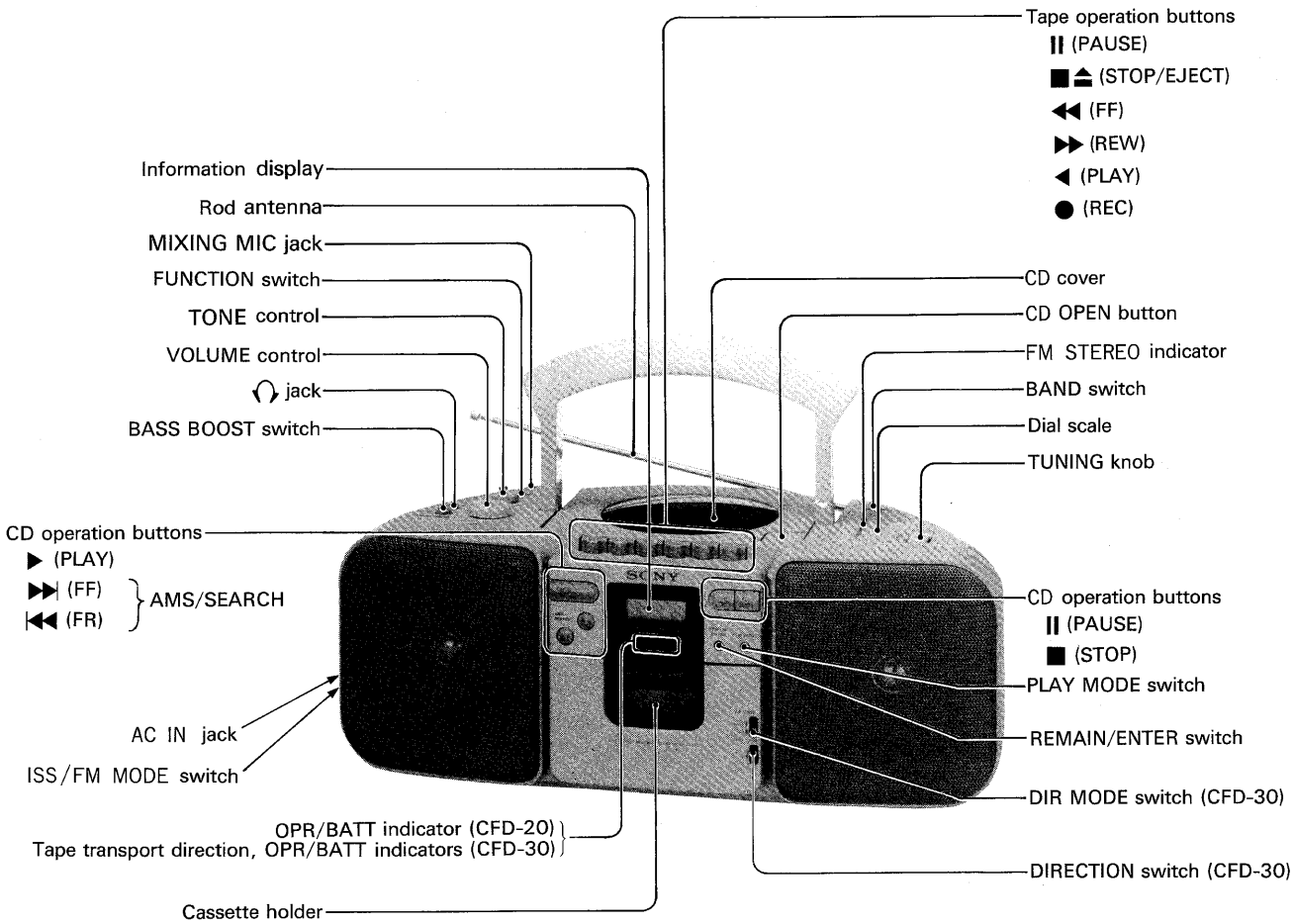
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

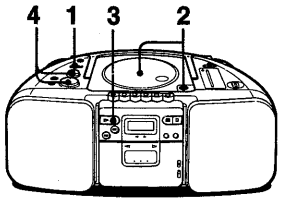
LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 2
GENERAL

LOCATION OF CONTROLS

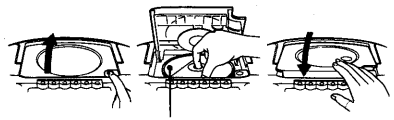


Playing a Disc—An 8 cm (3 inch) CD can be played without an adaptor.



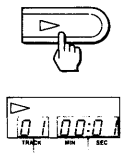
1

2 Place a disc.

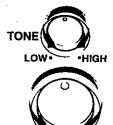


The number of selections in the disc and the total playing time will appear in the display window.

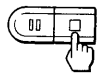
3



4



To stop play



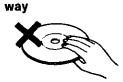
To turn off the unit
Set FUNCTION to TAPE CD/RADIO OFF.

Notes on compact discs

This way

Handle the disc by its edge.

Not this way



Do not touch the surface.

Not this way

Do not stick paper or tape nor write anything on the surface.

To pause: Press ▯▯. To resume play, press ▯▯ again.
To eject a disc: Press CD OPEN.

Do not press CD OPEN during playing
Otherwise, the disc will be damaged. Be sure to stop the disc first.

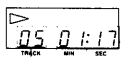
To reinforce the bass sound: Press BASS BOOST (⌓ ON).

While listening to the tape or radio
You can also adjust the sound with BASS BOOST.

Note on BASS BOOST
BASS BOOST is most effective around the third position from MIN of the volume range. Even if you raise the volume more, the BASS BOOST effect will be negligible.

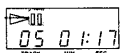
Information Display

During playing



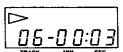
Selection number being played — Elapsed playing time

While CD player is set in pause

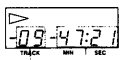


Pause indication appears

Between selections
Remaining time until the next selection is displayed.



To display the remaining time in the disc being played
Press REMAIN/ENTER

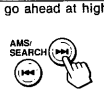


Remaining number of selections — Total remaining time in disc

To return to the normal display, press REMAIN/ENTER again.

Note
During shuffle or program play, the remaining time in the disc is not displayed even if REMAIN/ENTER is pressed.

Locating a Particular Portion

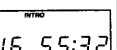
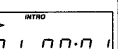
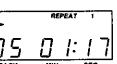
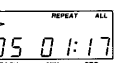
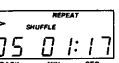
Locating a particular selection (AMS)*	To locate the beginning of the current selection Press once.	To locate the next selection Press once.
Locating a particular point in a selection (SEARCH)	To go back at high speed Keep pressed.	To go ahead at high speed  Keep pressed.

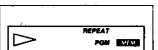
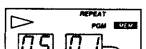
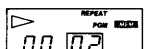
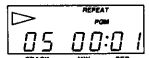
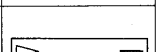
*AMS is the abbreviation of Automatic Music Sensor.

Notes on the AMS function
- The player pauses at the beginning of the located selection when you press ⏮ or ⏭ in pause mode.
- If you press ⏮ repeatedly, the player locates the previous selections. If you press ⏭ repeatedly, the player locates the selections ahead and stops at the last selection.

Selecting Various Playing Modes

Each time PLAY MODE is pressed, play mode changes as follows. To stop the disc, press □.
Operate while listening to the disc. However, select INTRO scan play when disc is not being played.

Play mode	Button to be pressed	Front display window
Scanning all the selections **—INTRO scan play**	❶ Press PLAY MODE once when disc is not being played. PLAY MODE	
Beginnings of selections are played for 10 seconds successively.	❷ Press ▷ Scanning starts from the first selection	
Repeating one selection **—REPEAT 1**	Press PLAY MODE once more while listening to the desired selection. PLAY MODE Press ⏮ or ⏭ for another selection.	
Repeating all the selections **—REPEAT ALL**	Press PLAY MODE once more. When play reaches the end of the disc, it starts again from the first selection. PLAY MODE	
Playing repeatedly in a random order —REPEAT SHUFFLE	Press PLAY MODE once more. PLAY MODE	

Playing in the desired order repeatedly **—REPEAT PGM (program)**	❶ Press PLAY MODE once more. PLAY MODE	
	❷ Choose the desired selection with ⏮ or ⏭ AMS SEARCH	 Program 1 5th Selection
	❸ Press REMAIN/ENTER REMAIN/ENTER The selection is stored.	 Program 2
	❹ Repeat steps ❷ and ❸. (Up to 16 selections)	
	❺ Press ▷ MEM disappears and play starts.	
Playing in the desired order once **—PGM (program)**	❶ Press PLAY MODE once more. PLAY MODE ❷ Repeat steps ❷ to ❺ above.	
To return to normal play, press PLAY MODE once more.		

When you open the disc holder or you press ⁻
All the programmed selections are cleared.

If another selection is stored after 16 selections have been stored
The first selection will be cleared and the new one will be stored in its place.

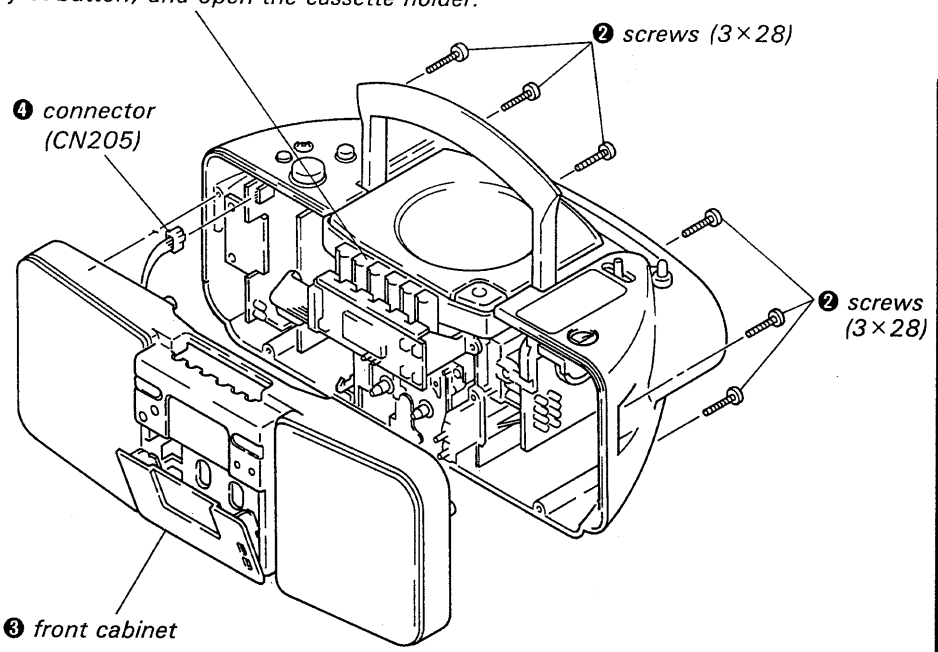
This section is extracted from instruction manual.

SECTION 3
DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

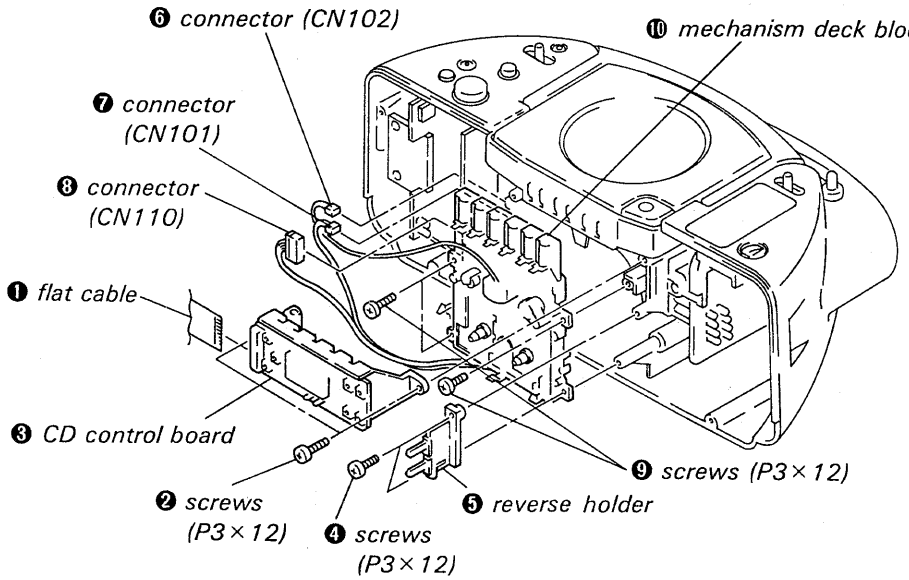
FRONT CABINET REMOVAL

❶ *Press the eject button, and open the cassette holder.*



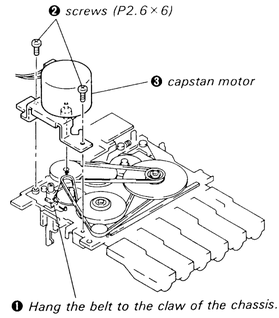
CFD-30

MECHANISM DECK BLOCK REMOVAL

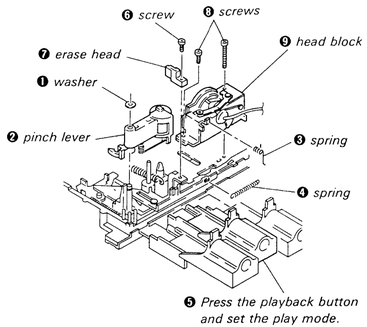


CFD-20

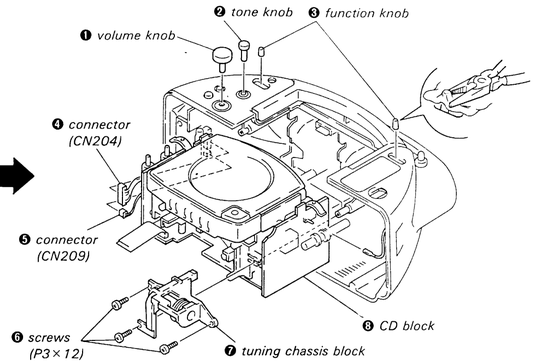
CAPSTAN MOTOR REMOVAL



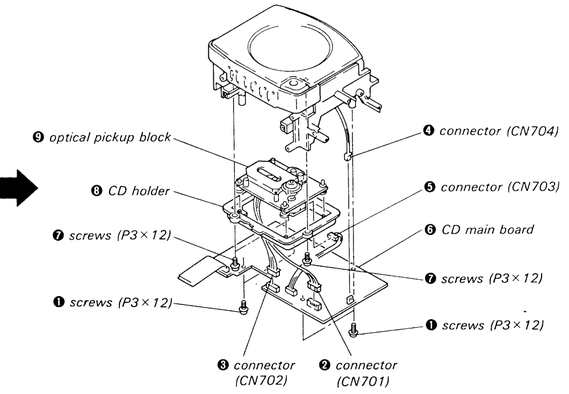
HEAD BLOCK AND PINCH LEVER REMOVAL



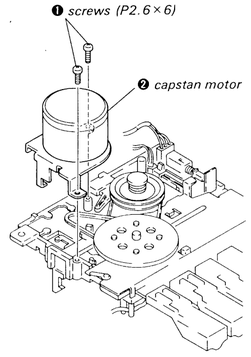
CD BLOCK REMOVAL



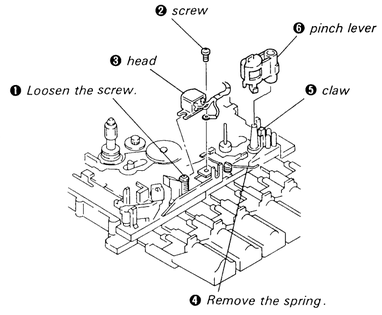
OPTICAL PICKUP BLOCK REMOVAL



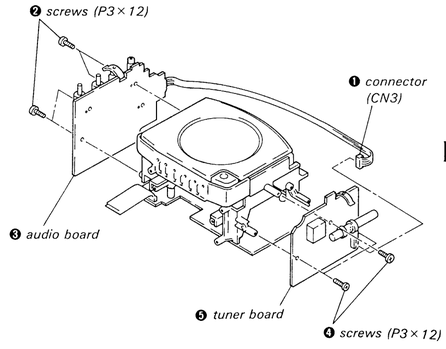
CAPSTAN MOTOR REMOVAL



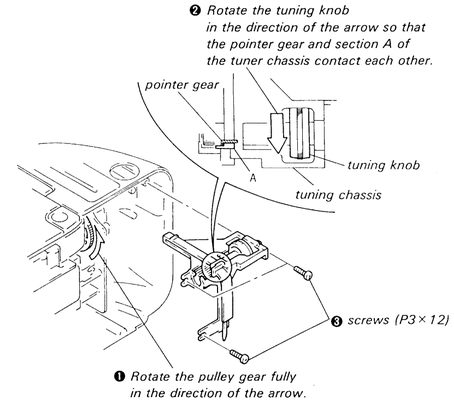
HEAD BLOCK AND PINCH LEVER REMOVAL



AUDIO BOARD AND TUNER BOARD REMOVAL



DIAL POINTER SETTING


❷ Rotate the tuning knob in the direction of the arrow so that the pointer gear and section A of the tuner chassis contact each other.
pointer gear
A
tuning knob
tuning chassis
❸ screws (P3×12)
❶ Rotate the pulley gear fully in the direction of the arrow.

SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be perfomed with the rated power supply voltage unless otherwise noted.
6. Power supply voltage: 9V dc.

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30 75g • cm (0.41 1.04 oz • inch)
Forward back tension	CQ-102C	1.5 6g • cm (0.020 0.083 oz • inch)
Reverse	CQ-102RC	30 75g • cm (0.41 1.04 oz • inch)
Reverse back tension	CQ-102RC	1.5 6g • cm (0.020 0.083 oz • inch)
Fast Forward	CQ-201B	60 130g • cm (0.83 1.80 oz • inch)
Rewind	CQ-201B	60 130g • cm (0.83 1.80 oz • inch)

Tape Tension Measurement (CFD-20)

Mode	Meter	Meter reading
Forward	CQ-403A	more than 150g (more than 5.28 oz)

Tape Tension Measurement (CFD-30)

Mode	Meter	Meter reading
Forward	CQ-403A	more than 90g (more than 3.16 oz)
Reverse	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENTS

5-1. TAPE RECORDER SECTION

Note: The adjustment should be performed in the order given in the service manual. As a rule, adjustment about playback should be performed before adjustment about recording.
The adjustments should be performed for both L-CH and R-CH.

Standard Output Level

Output terminal	PHONES
load impedance	32Ω
output signal level	0.25V (−10dB)

0dB = 0.775V

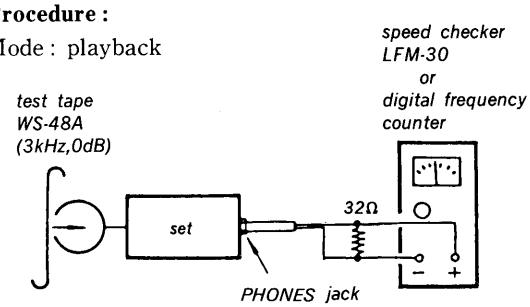
Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment
P-4-A063	6.3kHz, −10dB	azimuth adjustment

Tape Speed Adjustment

Procedure:

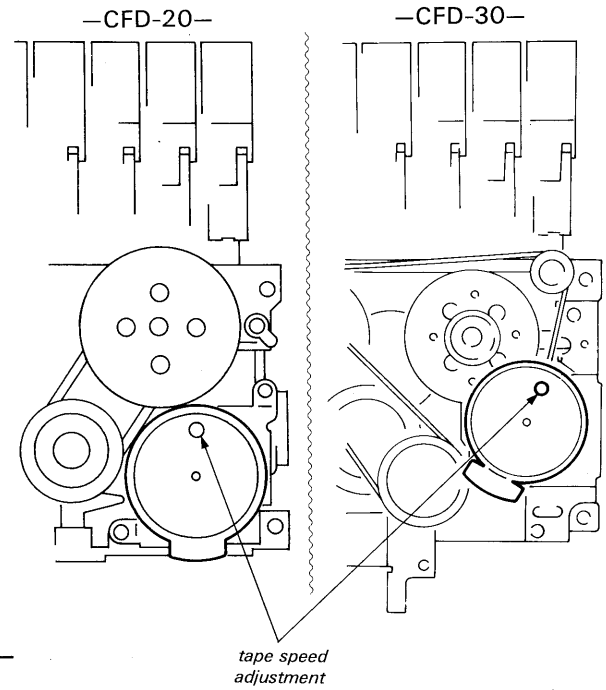
Mode: playback



Adjustment Value:

Speed checker	Digital frequency counter
−1.5% to +1.5%	2,955 to 3,045Hz

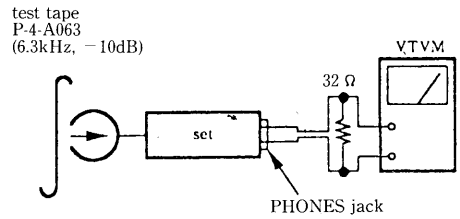
Adjustment Location: Mechanism Deck block



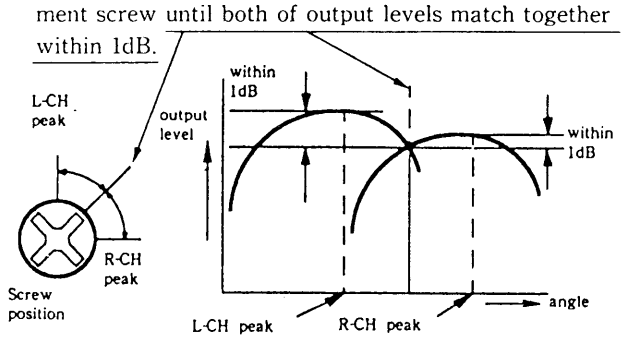
Record/Playback Head Azimuth Adjustment

Procedure :

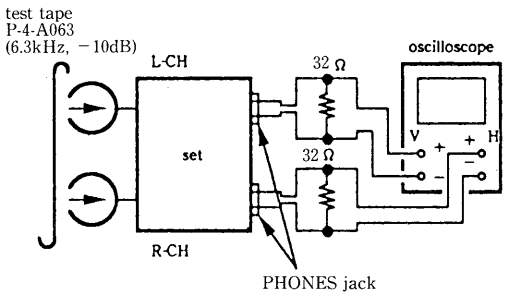
1. Mode: FWD playback

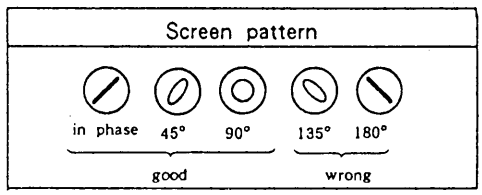


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



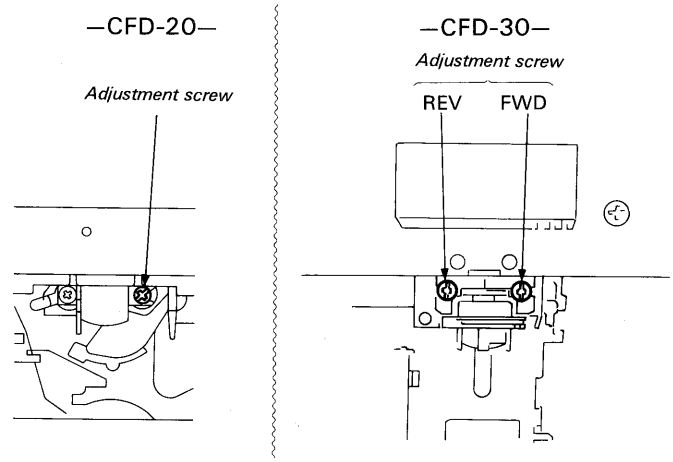
3. Phase Check
   Mode: playback





4. Set in the REV mode and repeat the step 1-3. (CFD-30)
5. After the adjustment, lock the screws with locking compound.

Adjustment Location : Record/playback head



Record Bias Adjustment

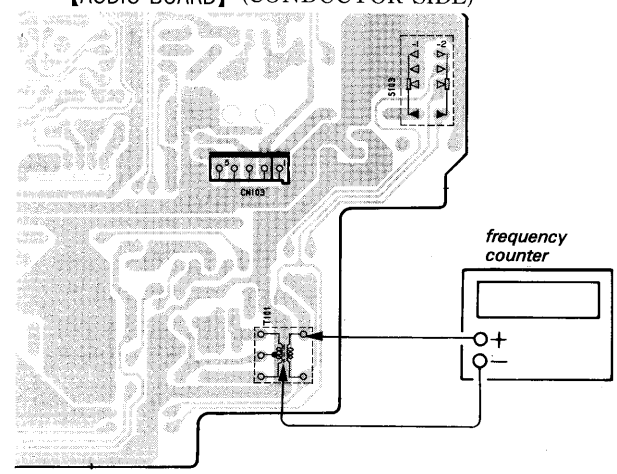
Procedure :

Mode : REC
ISS/FM MODE switch : 2/STEREO

Procedure :

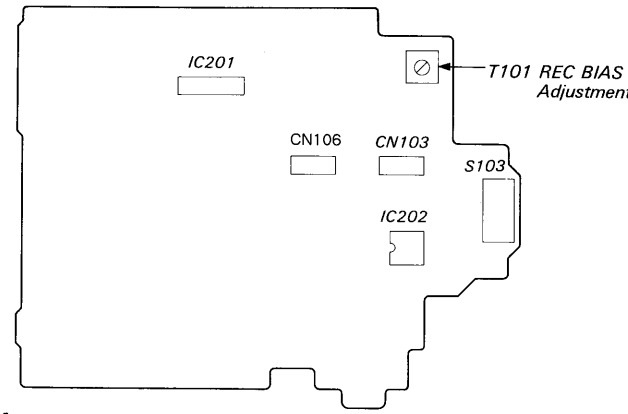
1. Connect the frequency counter as shown below.
2. Adjust with T101 so that the reading on the frequency counter becomes 76kHz.

【AUDIO BOARD】 (CONDUCTOR SIDE)



Adjustment Location :

【AUDIO BOARD】 (COMPONENT SIDE)

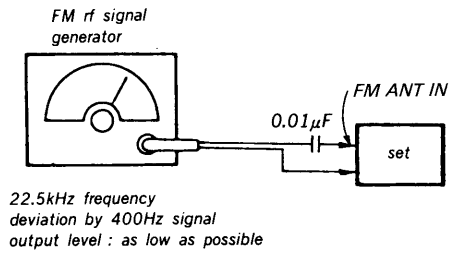


5-2. RADIO SECTION

• FM Section

Setting :

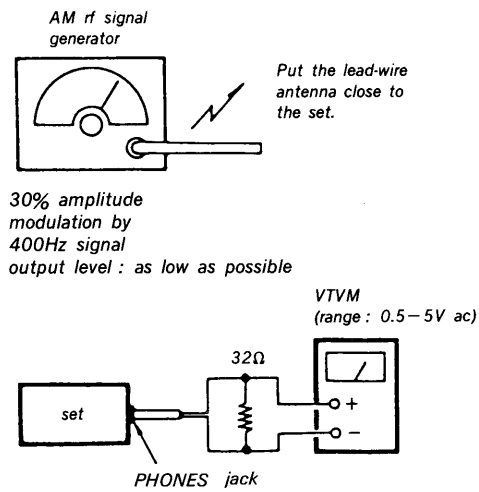
FUNCTION switch : FM



• AM Section

Setting :

FUNCTION switch : AM


AM rf signal generator
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400Hz signal output level : as low as possible
VTVM (range : 0.5−5V ac)
32Ω
set
+
−
PHONES jack

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM Frequency Coverage Adjustment	
Adjust for a maximum reading on VTVM.	
L2	CT2
US, CND, E model : 86.5MHz AEP, IT model : 87.35MHz	US, CND, E model : 109.5MHz AEP model : 108.1MHz IT model : 108.25MHz

FM Tracking Adjustment	
Adjust for a maximum reading on VTVM.	
L1	CT1
US, CND, E model : 90MHz AEP, IT model : 87.35MHz	US, CND, E model : 106MHz AEP model : 108.1MHz IT model : 108.25MHz

FM IF Adjustment
Adjust for a maximum reading on VTVM.
T1
455kHz

AM Frequency Coverage Adjustment	
Adjust for a maximum reading on VTVM.	
L3	CT4
US, CND, E model : 515kHz AEP model : 520kHz IT model : 516kHz	US, CND, E model : 1,780kHz AEP model : 1,680kHz IT model : 1,630kHz

AM Tracking Adjustment	
Adjust for a maximum reading on VTVM.	
L4	CT3
600kHz	1,400kHz

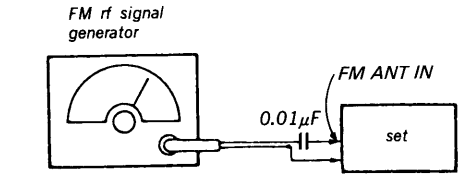
Adjustment Location see page 13.

NOTE:

CND : Canadian model
IT : Italian model

FM VCO Adjustment

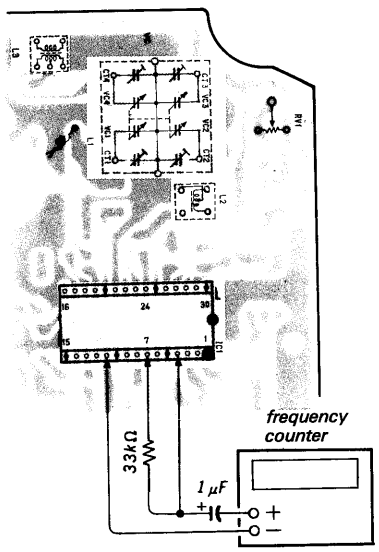
Procedure :



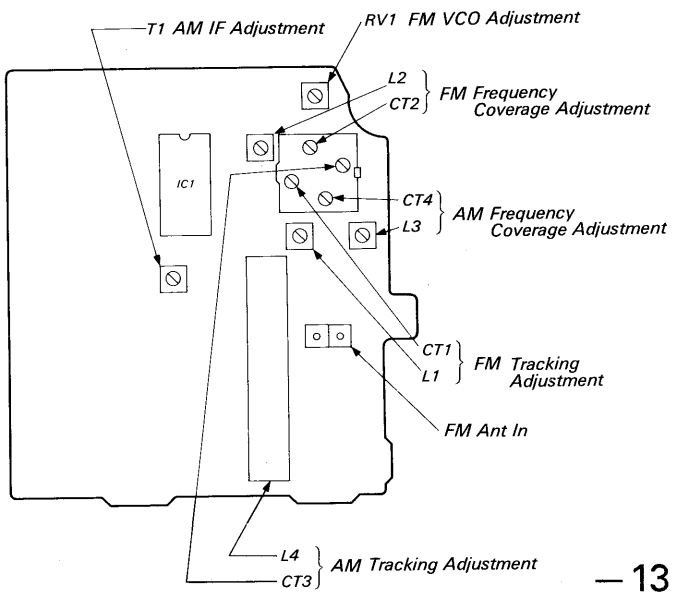
Carrier frequency : 98MHz
Modulation : no modulation
Output level : 0.1V (100dB)

1. Connect the frequency counter as shown below.
2. Tune the set to 98MHz.
3. Adjust RV1 for 76kHz±0.3kHz reading on the frequency counter.

[TUNER BOARD] (conductor side)



Adjustment Location : TUNER board (component side)



5-3. CD SECTION

Notes on Adjustment

1. Perform adjustment in test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Part No. 3-702-101-01) only when so indicated.

Before Adjustment

Put the set into test mode and perform the following checks.
Repair if there are any problems.

- **Sled Motor Check**

1. Press ▶ key, then press ■ key.
2. Press ▶▶| , |◀◀ keys and comfirm that the FOP moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises. (Cancellation of BTL mute.)
   ▶▶| : FOP moves to the outer circumference
   |◀◀ : FOP moves to the inner ciecumference

- **Focus Search Check**

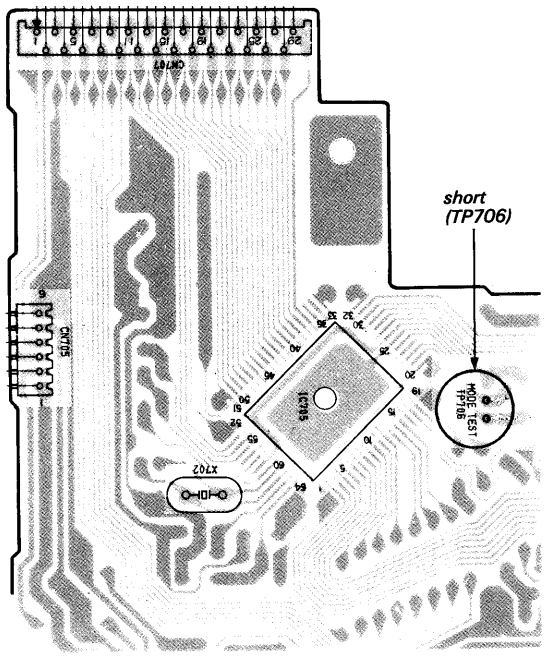
1. Press ▶ key. (Focus search operation is performed continuously.)
2. Look at the FOP objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ■ key.
   Confirm that focus search operation stops. If it does not, press ■ key again longer.

Note : When the malfunction is occured by mis-passing other keys, turn off the power and check again from making the test mode.

How to Put the Set into Test Mode

1. Short-circuit follwing portion(TP706)on the CD MAIN board.
2. Turn the POWER on.
3. Release the short.

【CD MAIN BOARD】 (conductor side)

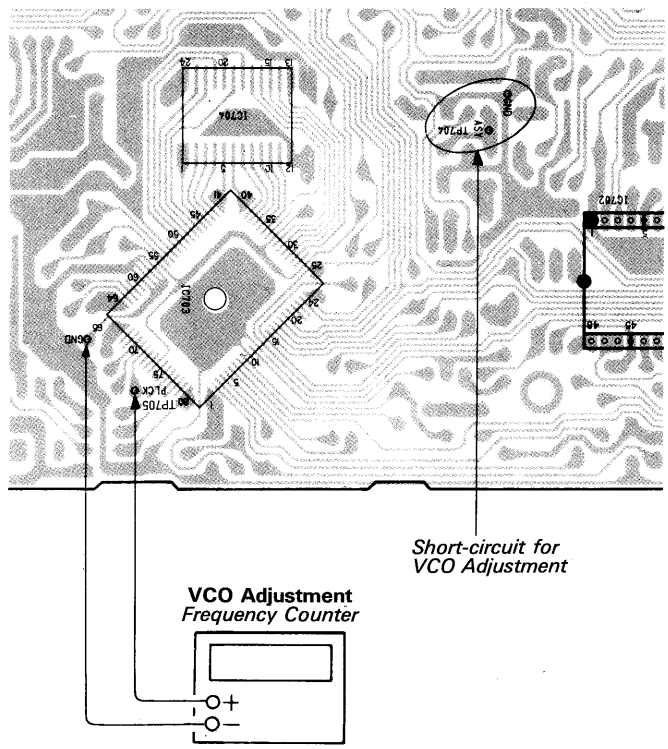


VCO Adjustment

1. Short-circuit the TP704 (ASY) and GND on the CD MAIN board.
2. Connect the frequency counter to the TP705 (PLCK).
3. Adjust with RV704 so that the reading on the frequency counter becomes 4.3218 MHz.
4. Release the short.

Adjustment Location: CD MAIN board (See page 15)

【CD MAIN BOARD】 (conductor side)

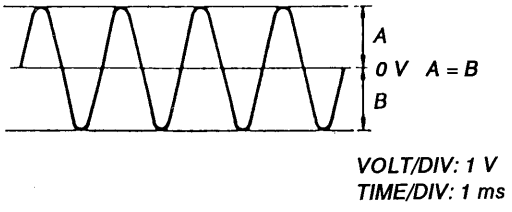


E. F Balance Adjustment

This adjustment is to be done when the optical block is replaced.

Adjustment Procedure:

1. Connect the oscilloscope between IC701 pins ⑳ and ⑨.
2. Put the set into test mode. (See page 14)
3. Press the ▶▶| and |◀◀ keys to move the FOP to the center.
4. Insert disc (YEDS-18) and press ▶ key.
5. Adjust RV701 so that the oscilloscope traverse waveform is symmetrical, as shown in the figure below.
6. Release test mode after adjustment is completed.



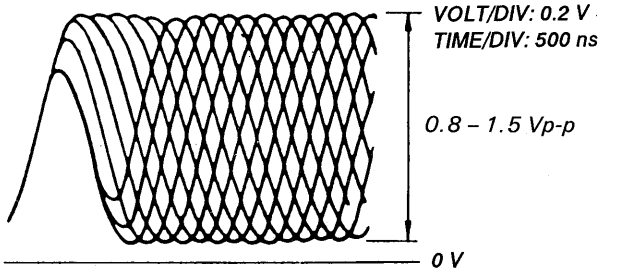
Focus Bias Adjustment

This adjustment is to be done when the optical block replaced.

Adjustment Procedure:

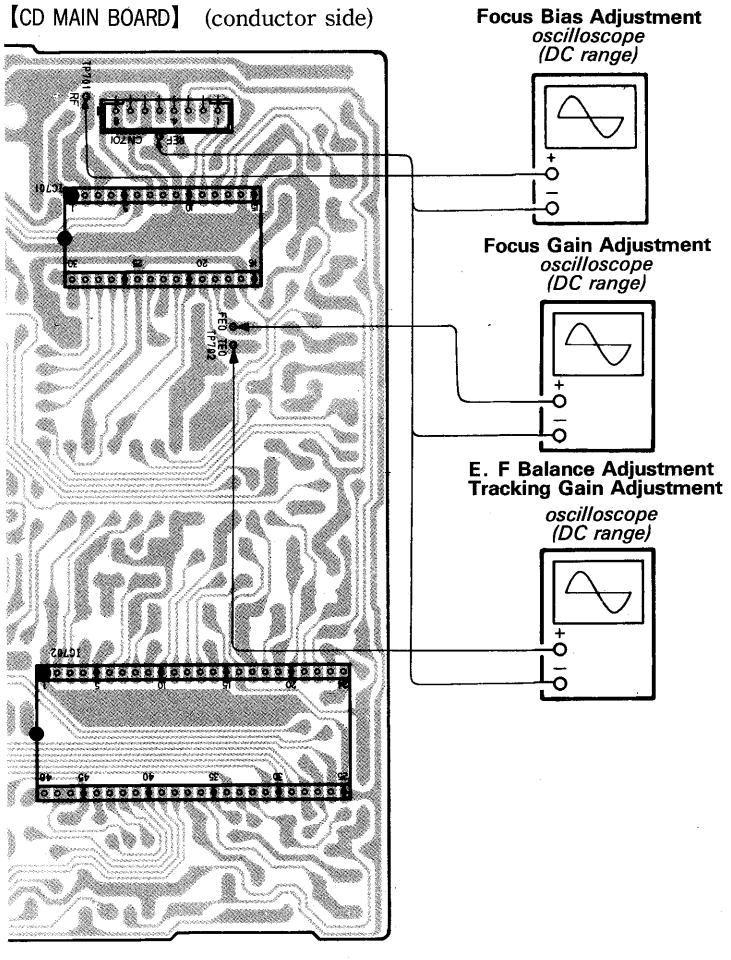
1. Connect the oscilloscope between IC701 pins ② and ⑨.
2. Put the set into test mode. (See page 14)
3. Press the ▶▶| and |◀◀ keys to move the FOP to the center. (Move the FOP to the music area on the disc to enable easy visibility of the eye pattern.)
4. Insert disc (YEDS-18) and press ▶ key.
5. Adjust RV705 so that the oscilloscope waveform os as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
6. Release test mode after adjustment is completed.

- RF signal reference waveform (eye pattern)

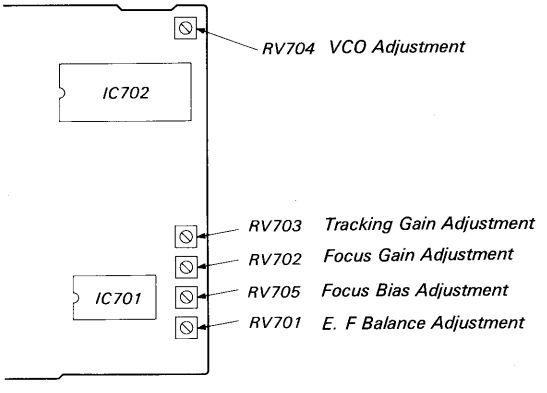


When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensivity.

【CD MAIN BOARD】 (conductor side)



Adjustment Location : CD MAIN board (component side)



5-4. REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

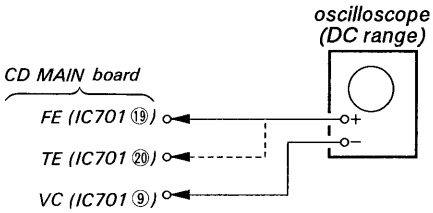
Symptoms / Tracking	Gain	Focus
• The time until music starts becomes longer for STOP ➡ ▶ PLAY or automatic selection (⏮ , ⏭ buttons pressed). (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP ➡ ▶ PLAY or automatic selection (⏮ , ⏭ buttons pressed).	—	low
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More poise during 2-axis device operation.	high	high

The following is a simple adjustment method.

– Simple Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

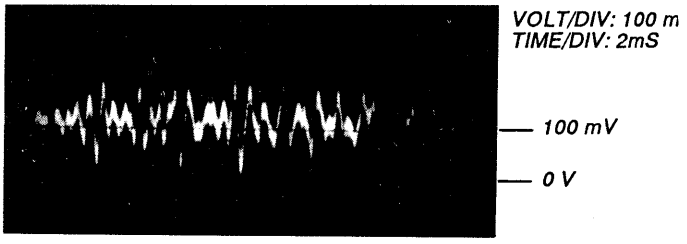
Procedure:



1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert disc (YEDS-18) and press ▶ PLAY button.
3. Connect the oscilloscope between IC701 pins ⑲ and ⑨.
4. Adjsutment RV702 so that the waveform is as shown in the figure below. (focus gain adjustment)

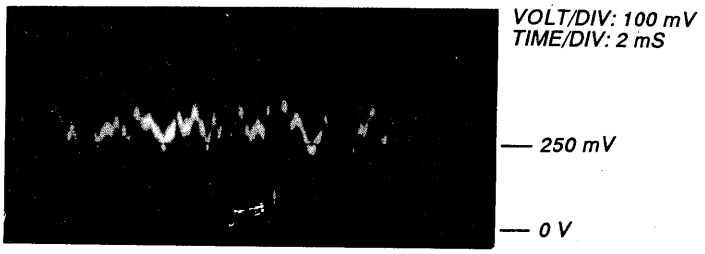
Adjustment Location: CD MAIN board (See page 15)

- Correct Example

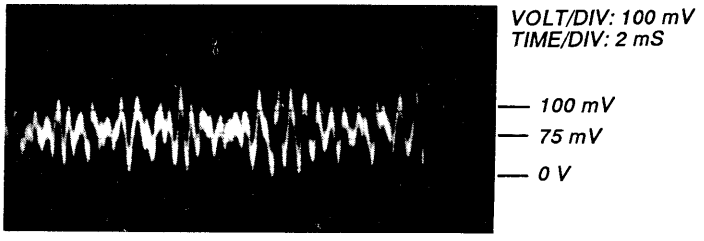


- Incorrent Examples (DC level changes more than on adjusted waveform)

low focus gain



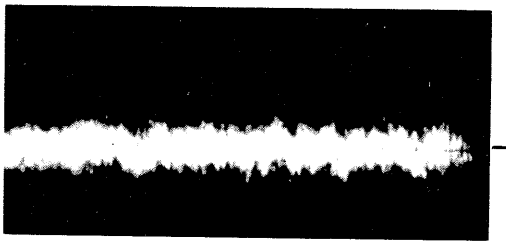
high focus gain



5. Connect the oscilloscope between IC701 pins ⑳ and ⑨.
6. Adjust RV703 so that the waveform is as shown in the figure below. (tracking gain adjustment)

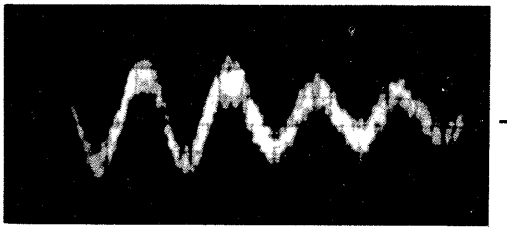
Adjustment Location: CD MAIN board (See page 15)

- Correct Example

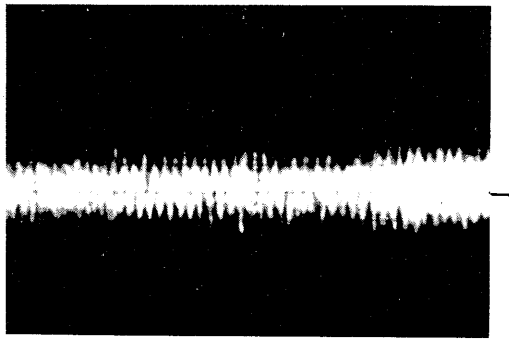


- Incorrect Examples (fundamental wave appears)

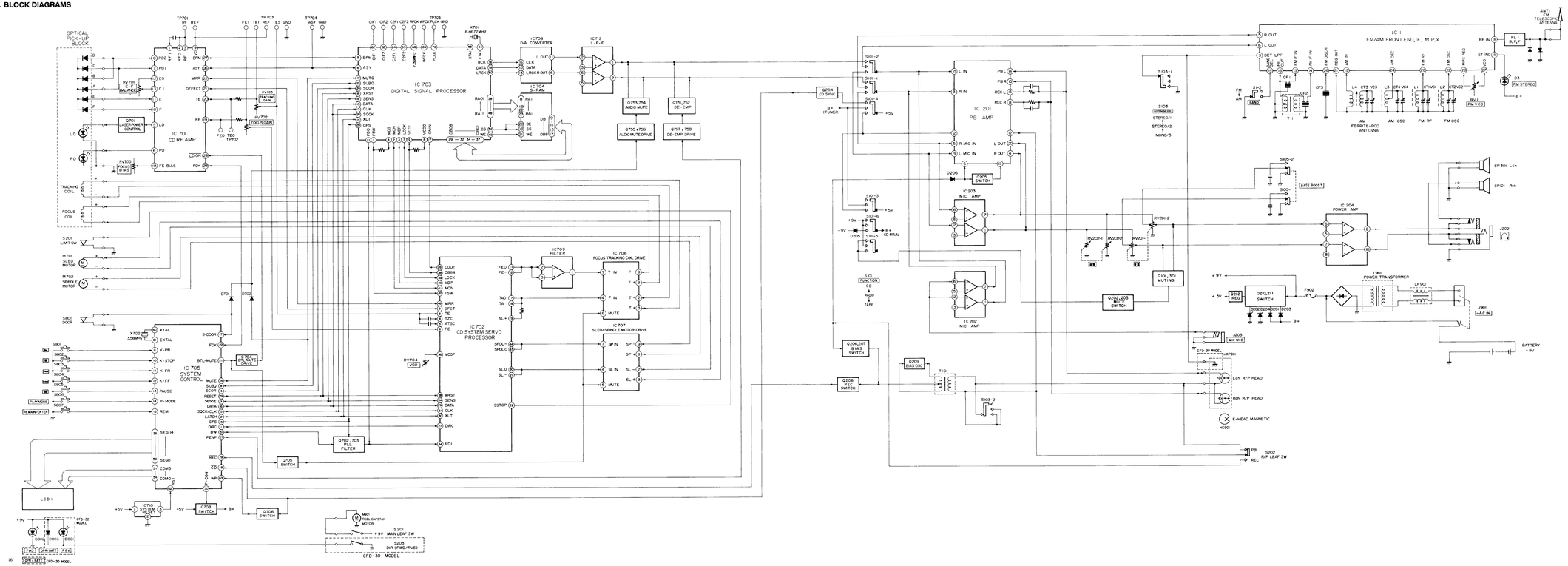
low tracking gain



high tracking gain
(higher fundamental wave than for low gain)



6-1. BLOCK DIAGRAMS



6-2. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	D-32	IC704	J-23
D2	C-32	IC705	I-20
D3	D-30	IC706	H-23
D201 (A)	E-7	IC707	I-23
D201 (B)	E-16	IC708	L-22
D202 (A)	E-7	IC709	H-24
D202 (B)	E-16	IC710	J-20
D203 (A)	E-7	IC712	K-20
D203 (B)	E-16		
D204 (A)	E-7	Q101	C-23
D204 (B)	E-15	Q202	B-25
D205	A-23	Q203	C-24
D206	F-23	Q204	C-26
D207	D-27	Q205	E-23
D208	D-27	Q206	E-26
D209 (A)	E-6	Q207	E-26
D209 (B)	E-15	Q208	E-27
D701	J-22	Q209	E-26
D702	J-22	Q210 (A)	D-7
D703	I-23	Q210 (B)	D-16
D704	I-23	Q211 (A)	D-7
D705	I-27	Q211 (B)	D-16
D706	I-27	Q212 (A)	D-6
D707	J-21	Q212 (B)	E-15
D708	K-19	Q301	C-23
D801	J-31	Q701	H-24
D802	J-31	Q702	J-25
D803	I-31	Q703	J-25
D901 (A)	C-6	Q704	I-24
D901 (B)	C-15	Q705	I-24
		Q706	J-20
IC1	B-32	Q708	I-22
IC201	E-24	Q751	K-21
IC202	C-27	Q752	K-21
IC203	C-24	Q753	K-19
IC204 (A)	F-3	Q754	K-19
IC204 (B)	F-12	Q755	K-20
IC701	H-25	Q756	K-21
IC702	K-25	Q757	K-22
IC703	K-23	Q758	K-22

NOTE:
(A) : CFD-20 : AEP, IT MODEL
(B) : CFD-20 : US, CND/CFD-30 MODEL

Note on Mounting Diagram :

• o—— : Parts extracted from the component side.
• ▒▒▒ : Pattern on the side which is seen.

• CND : Canadian model
• IT : Italian model

CFD-20 : AEP, IT MODEL

[POWER BOARD]

CFD-20 : US, CND/CFD-30 MODEL

[POWER BOARD]

[BATTERY BOARD]

[AUDIO BOARD]

[TUNER BOARD]

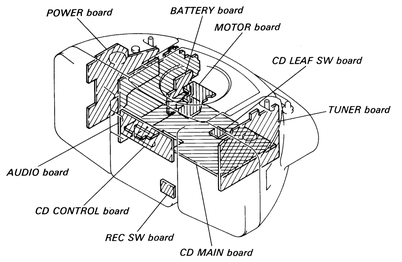
[CD MAIN BOARD]

[CD CONTROL BOARD]

[CD LEAF SW BOARD]

[MOTOR BOARD]

6-3. CIRCUIT BOARDS LOCATION



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- ⚠ : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ——— : B + Line.
- ▭ : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from external BATTERY TERMINAL.
  no mark : STOP
  ( ) : PLAY
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM ⇨ : PB
  ⇨ : CD ⇨ : REC
- CND : Canadian model
- IT : Italian model

6-5. SEMICONDUCTOR READ LAYOUTS

BA6294

KIA7039P

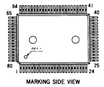
2SA1015-GR 2SC1815-GR 2SC1959

DTA114ES DTA124ES DTC114ES RN1203 RN1210

1SS202-1 RD5.6ES-B2

GL-3PR9

CXD1130Q



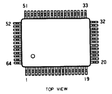
TA7417AP

2SB834-Y 2SD880-YGR

10E-2 1S2472 RD6.8F-B2

PBM203

CXP5084-629Q

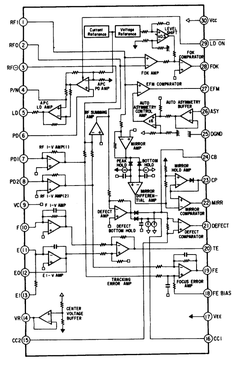


TA8207K

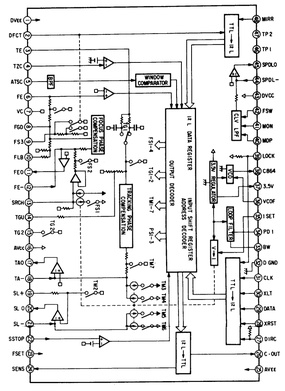
2SC2236-0 KTD1302

6-6. IC BLOCK DIAGRAMS

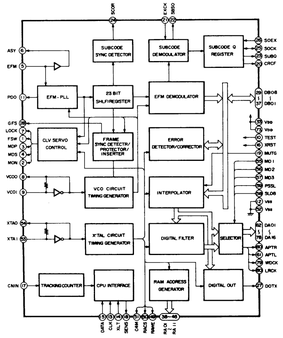
IC701 CXA1081S



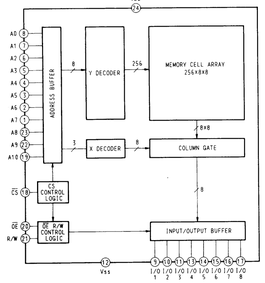
IC702 CXA1182S



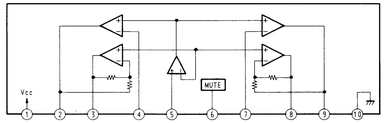
IC703 CXD1130Q



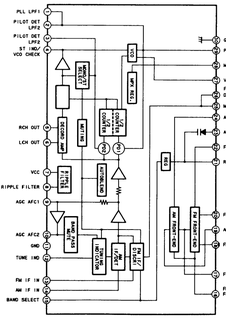
IC704 GM76C28



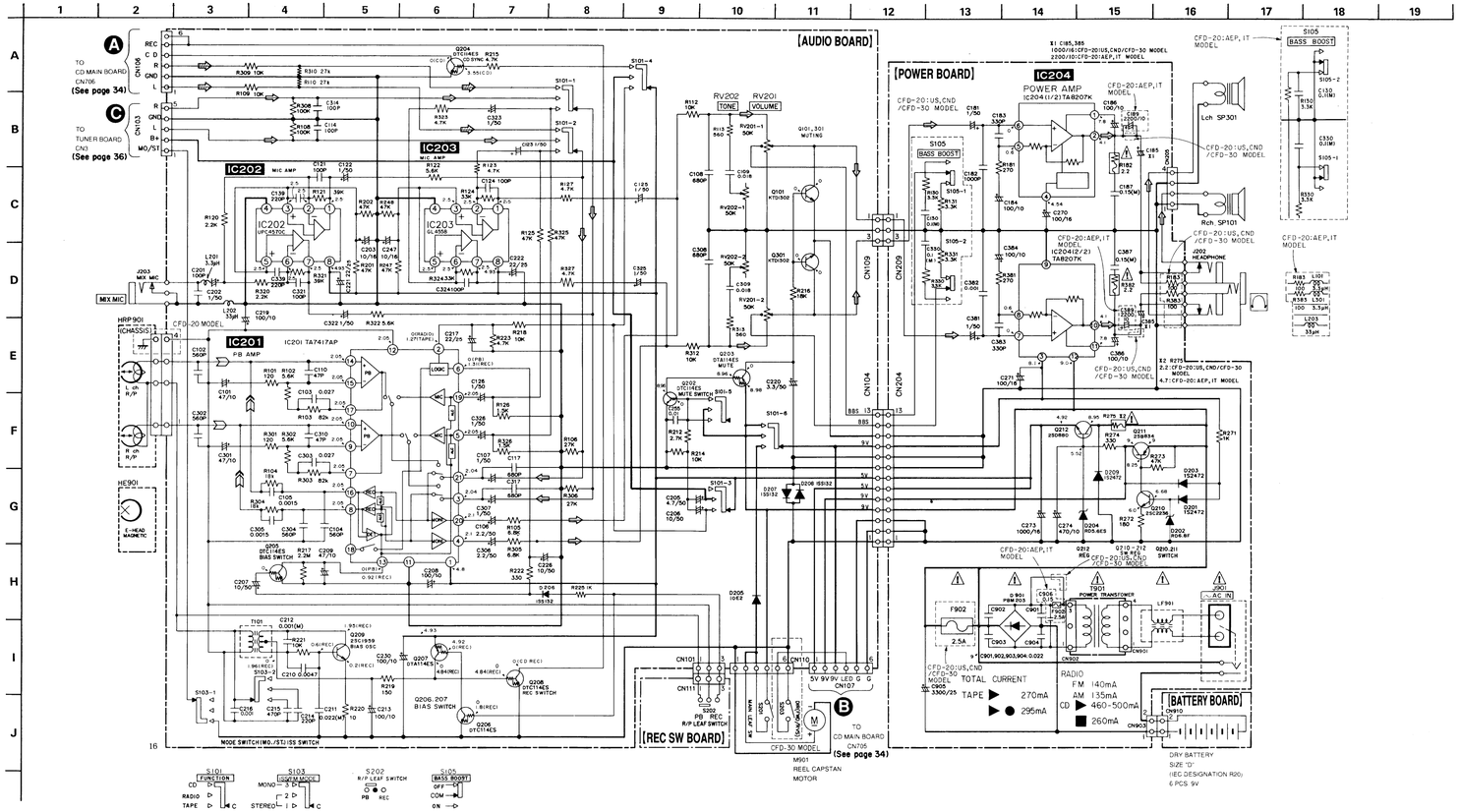
IC706, 707 BA6294



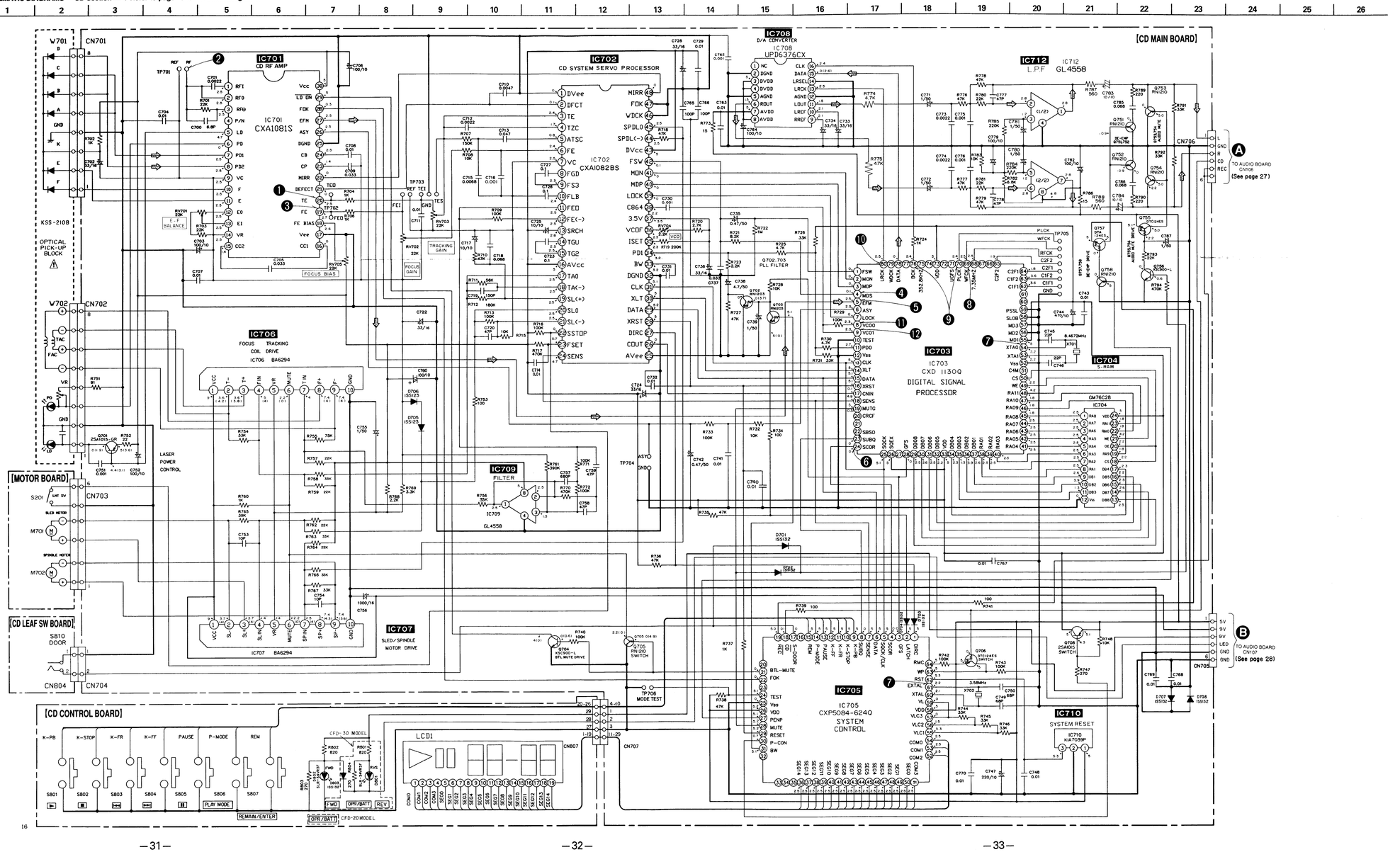
IC1 CXA1238S



6-4. SCHEMATIC DIAGRAMS — Audio Section —



6-7. SCHEMATIC DIAGRAMS — CD Section — ◆ Refer to page 29 for IC Block Diagrams.



• WAVEFORMS

1 — APPROX 500mVp-p — IC701 (20) PLAY (TP TEO)

2 — 1Vp-p — IC701 (2) PLAY (TP RF)

3 — APPROX 100mVp-p — IC701 (19) PLAY

4 — 2.2Vp-p — 5.5μsec — IC703 (3) PLAY

5 — 5Vp-p — 140μsec — IC703 (4) PLAY

6 — 4.7Vp-p — 13.5msec — IC703 (24) PLAY

7 — 0.4Vp-p / 0.3Vp-p — ⓐ 8.4672MHz ⓑ 3.58MHz — ⓐ IC703 (7), ⓑ IC705 (61)

8 — 5Vp-p — 690nsec — IC703 (68), (69) PLAY

9 — 5.2Vp-p — ⓐ 2μsec, ⓑ 2.4μsec — ⓐ IC703 (70), ⓑ IC703 (76)

10 — 5Vp-p — 114nsec — IC703 (80)

11 — 3Vp-p — 1.2μsec — IC703 (8) PLAY

12 — 2Vp-p — 1.2μsec — IC703 (9) PLAY

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- fusible resistor.

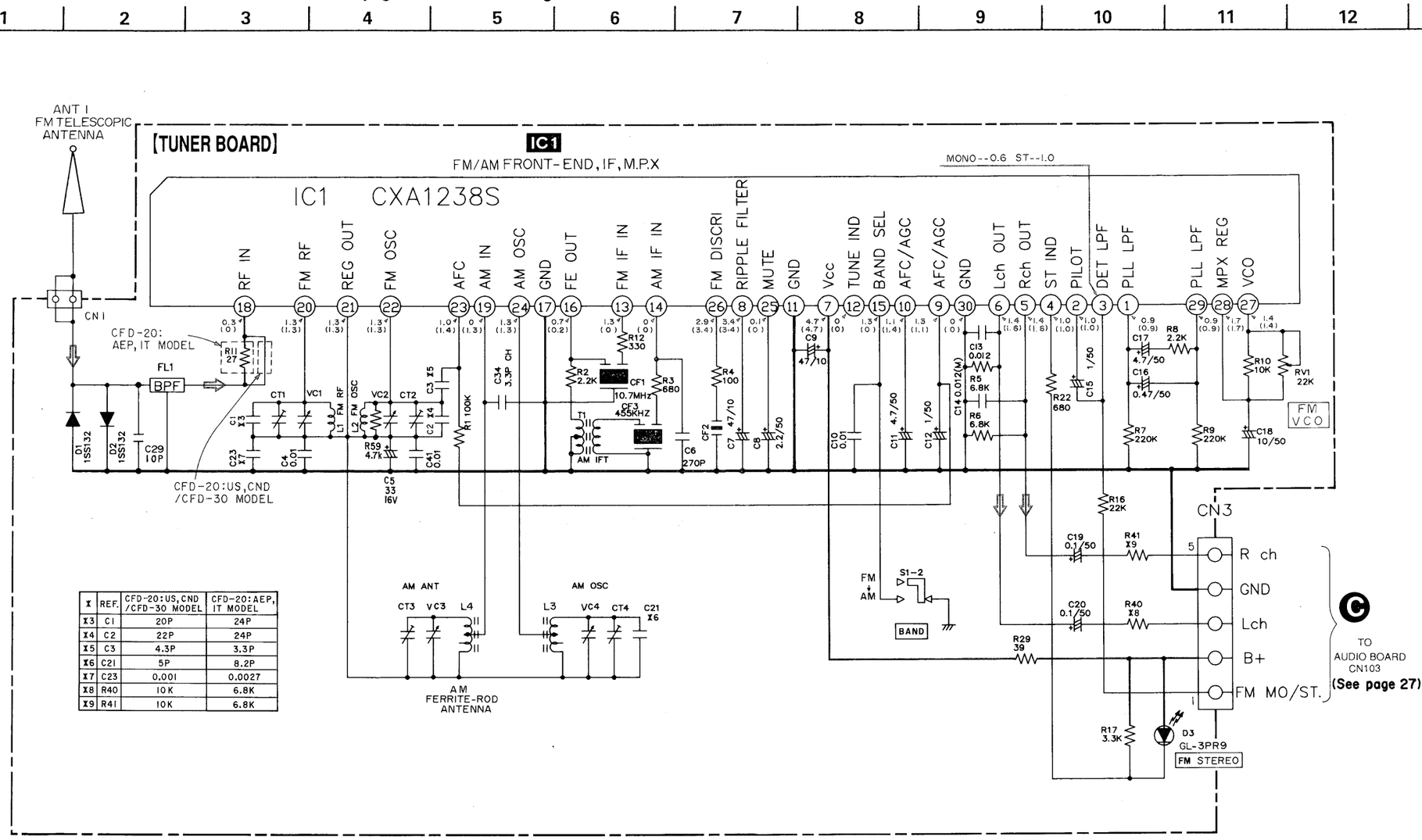
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ——— : B+ Line.
- [ ] : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from external BATTERY TERMINAL.
  no mark : STOP
  ( ) : PLAY
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD

• CND : Canadian model
• IT : Italian model

6-8. SCHEMATIC DIAGRAMS — Tuner Section — • Refer to page 29 for IC Block Diagrams.



X	REF.	CFD-20:US,CND /CFD-30 MODEL	CFD-20:AEP, IT MODEL
X3	C1	20P	24P
X4	C2	22P	24P
X5	C3	4.3P	3.3P
X6	C21	5P	8.2P
X7	C23	0.001	0.0027
X8	R40	10K	6.8K
X9	R41	10K	6.8K

Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- ⊣W⊢ : fusible resistor.

Note:	**Note:**
The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number sppecified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.

- ▭ : B + Line.
- ▭ : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from external BATTERY TERMINAL.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
- CND : Canadian model
- IT : Italian model

SECTION 7
EXPLODED VIEWS

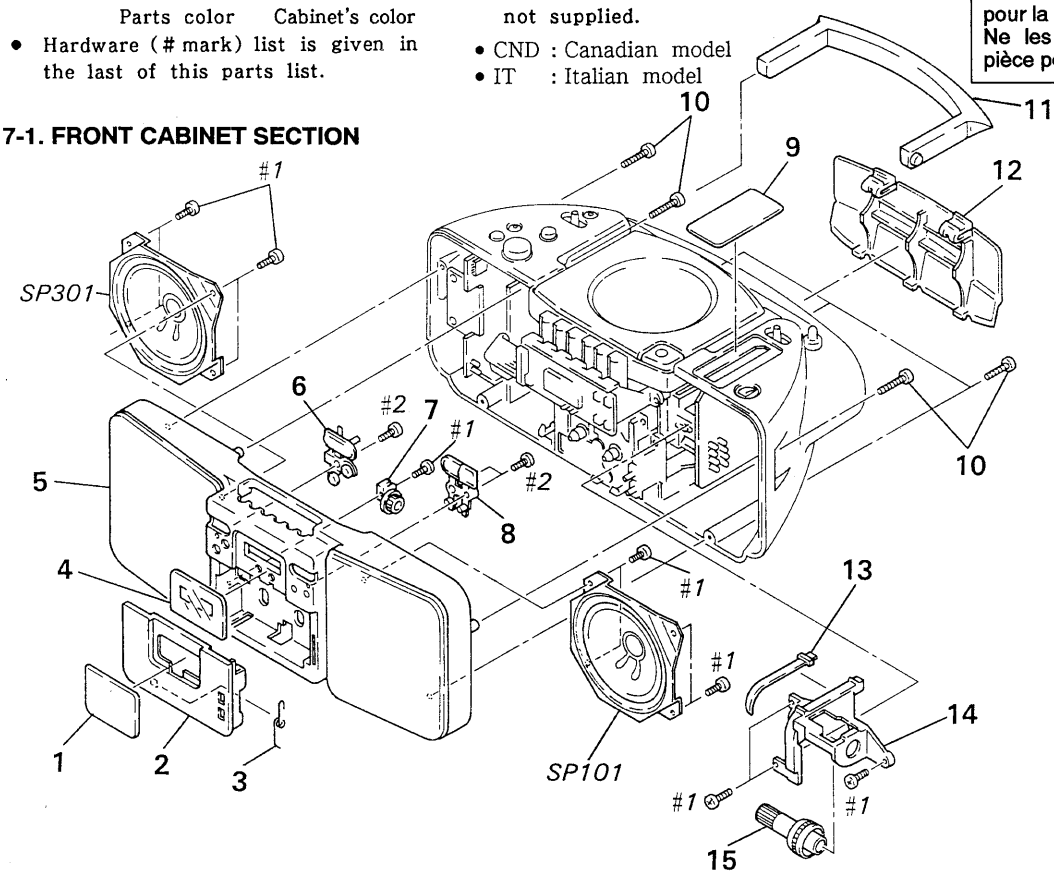
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example :
  KNOB, BALANCE (WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color
- Hardware (# mark) list is given in the last of this parts list.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- CND : Canadian model
- IT : Italian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spéci-fie.

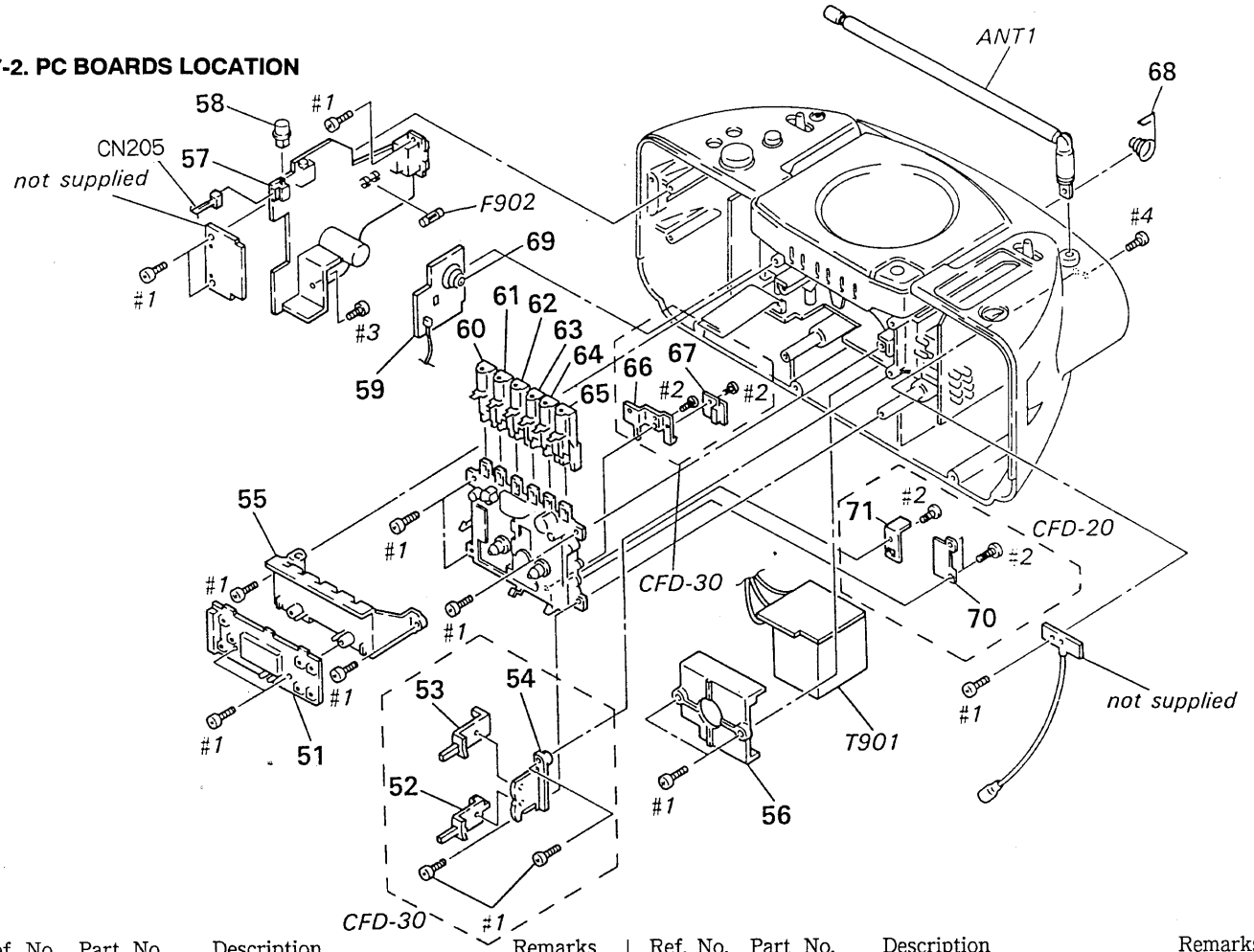
7-1. FRONT CABINET SECTION



Ref. No.	Part No.	Description	Remarks
1	3-378-214-01	WINDOW (A/R), CASSETTE (CFD-30)	
1	3-378-219-01	WINDOW, CASSETTE (CFD-20)	
2	3-380-985-01	HOLDER, CASSETTE (WHITE) (CFD-20)	
2	3-380-985-11	HOLDER, CASSETTE (BLACK) (CFD-20)	
2	3-380-985-21	HOLDER, CASSETTE (BLUE) (CFD-20)	
2	3-381-132-01	HOLDER, CASSETTE (WHITE) (CFD-30)	
2	3-381-132-11	HOLDER, CASSETTE (BLACK) (CFD-30)	
2	3-381-132-21	HOLDER, CASSETTE (BLUE) (CFD-30)	
3	3-380-713-01	SPRING, CASSETTE	
4	3-378-212-01	WINDOW (A/R), LCD (CFD-30)	
4	3-378-218-01	WINDOW, LCD (CFD-20)	
5	X-3365-333-1	CABINET(FRONT) SUB ASSY (WHITE) (CFD-20)	
5	X-3365-334-1	CABINET(FRONT) SUB ASSY (BLACK) (CFD-20)	
5	X-3365-335-1	CABINET(FRONT) SUB ASSY (BLUE) (CFD-20)	
5	X-3365-356-1	CABINET(FRONT) SUB ASSY (WHITE) (CFD-30)	
5	X-3365-357-1	CABINET(FRONT) SUB ASSY (BLACK) (CFD-30)	
5	X-3365-358-1	CABINET(FRONT) SUB ASSY (BLUE) (CFD-30)	
6	3-380-095-01	KNOB, CD(A) (WHITE)	
6	3-380-095-11	KNOB, CD(A) (BLACK)	
6	3-380-095-21	KNOB, CD(A) (BLUE)	
7	3-380-711-01	DAMPER, CASSETTE HOLDER	

Ref. No.	Part No.	Description	Remarks
8	3-380-096-01	KNOB, CD(B) (WHITE)	
8	3-380-096-11	KNOB, CD(B) (BLACK)	
8	3-380-096-21	KNOB, CD(B) (BLUE)	
9	3-378-215-01	WINDOW, DIAL (WHITE)	
9	3-378-215-11	WINDOW, DIAL (BLACK)	
9	3-378-215-21	WINDOW, DIAL (BLUE)	
10	3-380-715-01	SCREW (3X27.5) (WHITE)	
10	3-380-716-01	SCREW (3X28) (BLACK, BLUE)	
11	3-380-085-01	HANDLE (WHITE)	
11	3-380-085-11	HANDLE (BLACK)	
11	3-380-085-21	HANDLE (BLUE)	
12	3-380-103-31	COVER, BATTERY (WHITE)	
12	3-380-103-41	COVER, BATTERY (BLACK)	
12	3-380-103-51	COVER, BATTERY (BLUE)	
13	3-380-087-01	POINTER GEAR	
14	3-380-093-01	CHASSIS, TUNING	
15	3-380-086-01	KNOB, TUNING (WHITE)	
15	3-380-086-11	KNOB, TUNING (BLACK)	
15	3-380-086-21	KNOB, TUNING (BLUE)	
SP101	1-544-743-11	SPEAKER	
SP301	1-544-743-11	SPEAKER	

7-2. PC BOARDS LOCATION

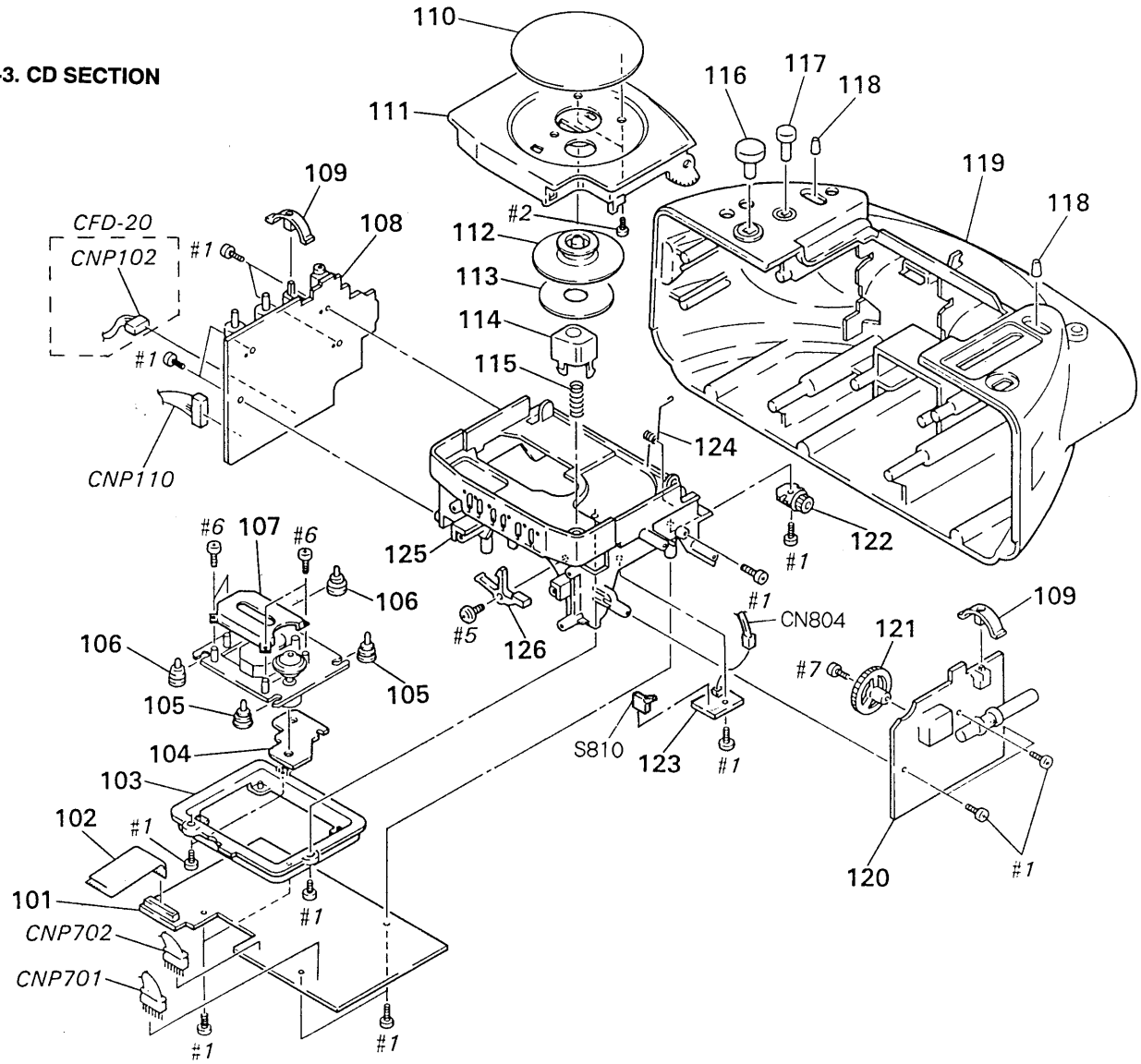


Ref. No.	Part No.	Description	Remarks
* 51	1-644-032-11	CD CONTROL BOARD	
52	3-380-065-01	KNOB, DIRECTION (WHITE) (CFD-30)	
52	3-380-065-11	KNOB, DIRECTION (BLACK) (CFD-30)	
52	3-380-065-21	KNOB, DIRECTION (BLUE) (CFD-30)	
53	3-380-073-01	KNOB MODE (WHITE) (CFD-30)	
53	3-380-073-11	KNOB MODE (BLACK) (CFD-30)	
53	3-380-073-21	KNOB MODE (BLUE) (CFD-30)	
54	3-380-082-01	HOLDER REVERSE (CFD-30)	
* 55	3-380-079-01	HOLDER, LCD	
* 56	3-380-081-01	HOLDER, POWER TRANS	
* 57	A-3262-673-A	POWER BOARD, COMPLETE (CFD-30:E)	
* 57	A-3262-695-A	POWER BOARD, COMPLETE (CFD-20:US, CND/CFD-30:US)	
* 57	A-3262-718-A	POWER BOARD, COMPLETE (CFD-20:AEP, IT)	
58	3-380-072-01	KNOB, B/B (WHITE)	
58	3-380-072-11	KNOB, B/B (BLACK)	
58	3-380-072-21	KNOB, B/B (BLUE)	
59	1-644-027-11	BATTERY BOARD	
60	3-380-094-01	KNOB, PAUSE (WHITE) (CFD-30)	
60	3-380-094-11	KNOB, PAUSE (BLACK) (CFD-30)	
60	3-380-094-21	KNOB, PAUSE (BLUE) (CFD-30)	
60	3-380-983-01	KNOB, PAUSE (WHITE) (CFD-20)	
60	3-380-983-11	KNOB, PAUSE (BLACK) (CFD-20)	
60	3-380-983-21	KNOB, PAUSE (BLUE) (CFD-20)	
61	3-380-091-01	KNOB, STOP/EJ (WHITE) (CFD-30)	
61	3-380-091-11	KNOB, STOP/EJ (BLACK) (CFD-30)	
61	3-380-091-21	KNOB, STOP/EJ (BLUE) (CFD-30)	
61	3-380-984-01	KNOB, STOP/EJ (WHITE) (CFD-20)	
61	3-380-984-11	KNOB, STOP/EJ (BLACK) (CFD-20)	
61	3-380-984-21	KNOB, STOP/EJ (BLUE) (CFD-20)	
62	3-380-092-01	KNOB, FF (WHITE) (CFD-30)	
62	3-380-092-11	KNOB, FF (BALCK) (CFD-30)	
62	3-380-092-21	KNOB, FF (BLUE) (CFD-30)	
62	3-380-981-01	KNOB, FF (WHITE) (CFD-20)	
62	3-380-981-11	KNOB, FF (BLACK) (CFD-20)	
62	3-380-981-21	KNOB, FF (BLUE) (CFD-20)	
63	3-380-088-01	KNOB, RWD (WHITE) (CFD-30)	
63	3-380-088-11	KNOB, RWD (BLACK) (CFD-30)	
63	3-380-088-21	KNOB, RWD (BLUE) (CFD-30)	
63	3-380-982-01	KNOB, RWD (WHITE) (CFD-20)	
63	3-380-982-11	KNOB, RWD (BLACK) (CFD-20)	
63	3-380-982-21	KNOB, RWD (BLUE) (CFD-20)	
64	3-380-089-01	KNOB, PLAY (WHITE) (CFD-30)	
64	3-380-089-11	KNOB, PLAY (BLACK) (CFD-30)	
64	3-380-089-21	KNOB, PLAY (BLUE) (CFD-30)	
64	3-380-979-01	KNOB, PLAY (WHITE) (CFD-20)	
64	3-380-979-11	KNOB, PLAY (BLACK) (CFD-20)	
64	3-380-979-21	KNOB, PLAY (BLUE (CFD-20)	
65	3-380-090-01	KNOB, REC (WHITE) (CFD-30)	
65	3-380-090-11	KNOB, REC (BLACK) (CFD-30)	
65	3-380-090-21	KNOB, REC (BLUE) (CFD-30)	
65	3-380-986-01	KNOB, REC (WHITE) (CFD-20)	
65	3-380-986-11	KNOB, REC (BLACK) (CFD-20)	
65	3-380-986-21	KNOB, REC (BLUE) (CFD-20)	
66	3-380-068-01	BRACKET REC (CFD-30)	
67	1-644-449-11	REC SW (RVS) BOARD (CFD-30)	
68	3-380-712-01	SPRING, BATT (+, -)	
69	3-380-067-01	SPRING, BATT (-)	
70	1-644-450-11	REC SW BOARD (CFD-20)	
71	3-380-980-01	BRACKET, REC (CFD-20)	
72	1-533-243-11	HOLDER, FUSE	
ANT1	1-501-537-11	ANTENNA, TELESCOPIC	
* CN205	1-695-057-11	WIRE, SPEAKER	
⚠F902	1-532-826-11	FUSE, GLASS TUBE (2.5A) (CFD-20:US, CND/CFD-30:US)	
⚠F902	1-532-286-00	FUSE, TIME-LAG (2.5A) (CFD-20:AEP, IT)	
⚠F902	1-532-456-XX	FUSE, GLASS TUBE (2.5A) (CFD-30:E)	
⚠T901	1-450-970-11	TRANSFORMER, POWER (CFD-20:US, CND/CFD-30)	
⚠T901	1-450-985-11	TRANSFORMER, POWER (CFD-20:AEP, IT)	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

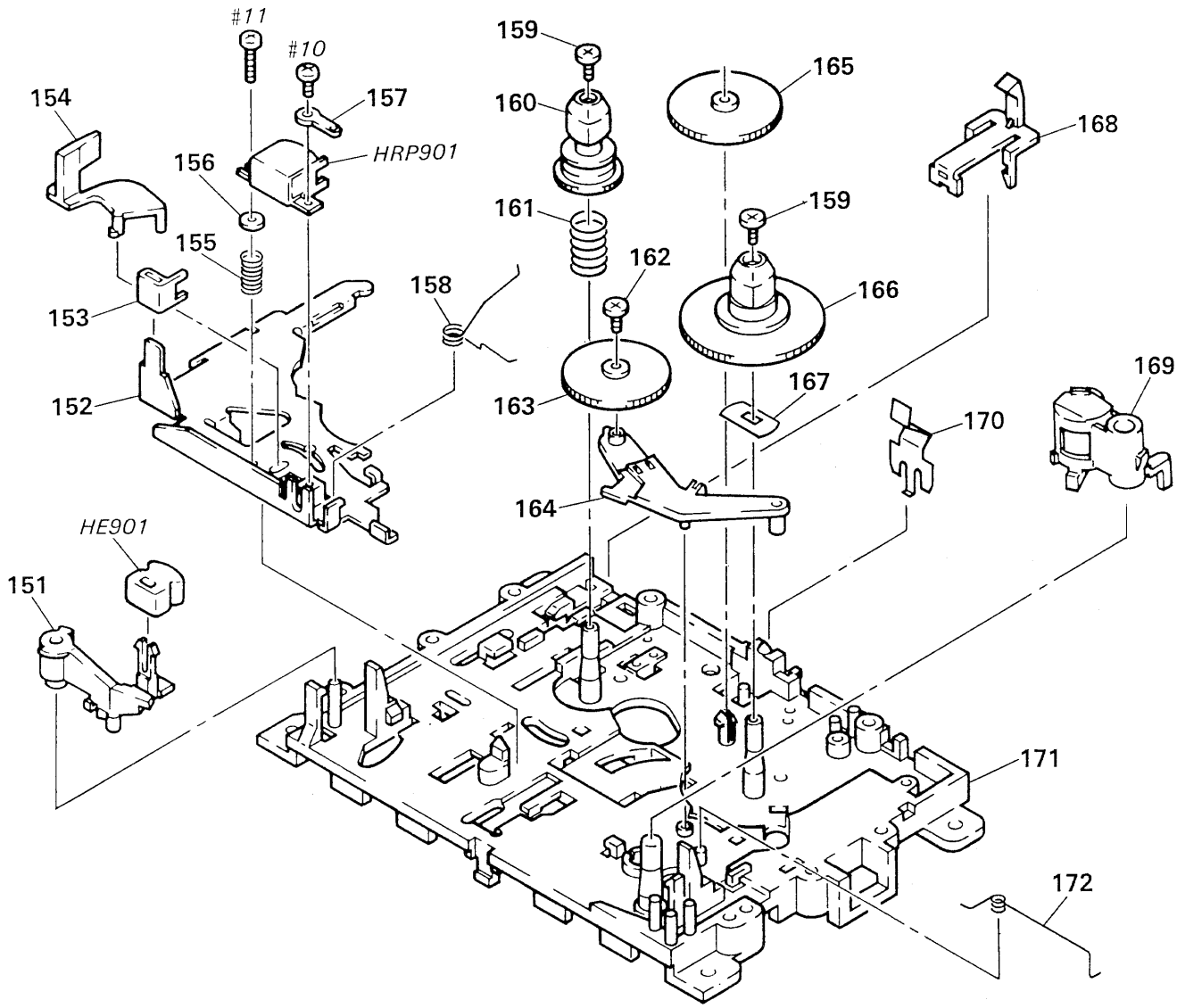
7-3. CD SECTION



Ref. No.	Part No.	Description	Remarks
* 101	A-3275-519-A	CD MAIN BOARD, COMPLETE	
102	1-696-020-11	CABLE, FLAT	
103	3-380-080-01	HOLDER, CD	
104	1-636-789-13	MOTOR BOARD	
105	3-380-720-01	CUSHION, CD	
* 106	3-381-610-01	CUSHION, CD (BLK)	
107	3-380-724-01	MD COVER, CD	
* 108	A-3262-671-A	AUDIO BOARD, COMPLETE (CFD-30)	
* 108	A-3262-694-A	AUDIO BOARD, COMPLETE (CFD-20)	
109	3-380-070-01	KNOB, LEVER (WHITE)	
109	3-380-070-11	KNOB, LEVER (BLACK)	
109	3-380-070-21	KNOB, LEVER (BLUE)	
110	3-380-078-01	WINDOW, CD	
111	3-380-097-31	COVER, CD (WHITE)	
111	3-380-097-41	COVER, CD (BLACK)	
111	3-380-097-51	COVER, CD (BLUE)	
112	3-380-721-01	CHUCK PLATE	
* 113	3-381-611-01	SHEET, CHUCK HOLDER	
114	3-380-074-01	KNOB, CD EJECT (WHITE)	
114	3-380-074-11	KNOB, CD EJECT (BLACK)	
114	3-380-074-21	KNOB, CD EJECT (BLUE)	
115	3-380-719-01	SPRING, CD EJECT	
116	3-380-064-01	KNOB, VOLUME (WHITE)	
116	3-380-064-11	KNOB, VOLUME (BLACK)	
116	3-380-064-21	KNOB, VOLUME (BLUE)	
117	3-380-063-01	KNOB, TONE (WHITE)	

Ref. No.	Part No.	Description	Remarks
117	3-380-063-11	KNOB, TONE (BLACK)	
117	3-380-063-21	KNOB, TONE (BLUE)	
118	3-380-071-01	KNOB, LEVER (TOP) (WHITE)	
118	3-380-071-11	KNOB, LEVER (TOP) (BLACK)	
118	3-380-071-21	KNOB, LEVER (TOP) (BLUE)	
119	3-380-988-31	CABINET (REAR) (WHITE)	
119	3-380-988-41	CABINET (REAR) (BLACK)	
119	3-380-988-51	CABINET (REAR) (BLUE)	
* 120	A-3262-693-A	TUNER BOARD, COMPLETE	(CFD-20:US, CND/CFD-30)
* 120	A-3264-627-A	TUNER BOARD, COMPLETE	(CFD-20:AEP, IT)
121	3-380-075-01	PULLEY GEAR	
122	3-380-722-01	DAMPER, CD	
123	1-644-031-11	PC BOARD, CD LEAF SW	
124	3-380-714-01	SPRING, CD COVER	
125	3-380-725-01	CHASSIS CD (WHITE)	
125	3-380-725-11	CHASSIS CD (BLACK)	
125	3-380-725-21	CHASSIS CD (BLUE)	
126	3-380-083-01	LEVER, CD EJECT	
* CNP102	1-695-174-11	CONNECTOR 4P (CFD-20)	
* CNP110	1-695-562-11	CONNECTOR 6P (CFD-30)	
* CNP110	1-695-563-11	CONNECTOR 4P (CFD-20)	
* CNP701	1-695-170-11	CONNECTOR 8P	
* CNP702	1-695-150-11	CONNECTOR 8P	
* CN804	1-695-143-11	CONNECTOR 2P	
S810	1-692-171-11	SWITCH	

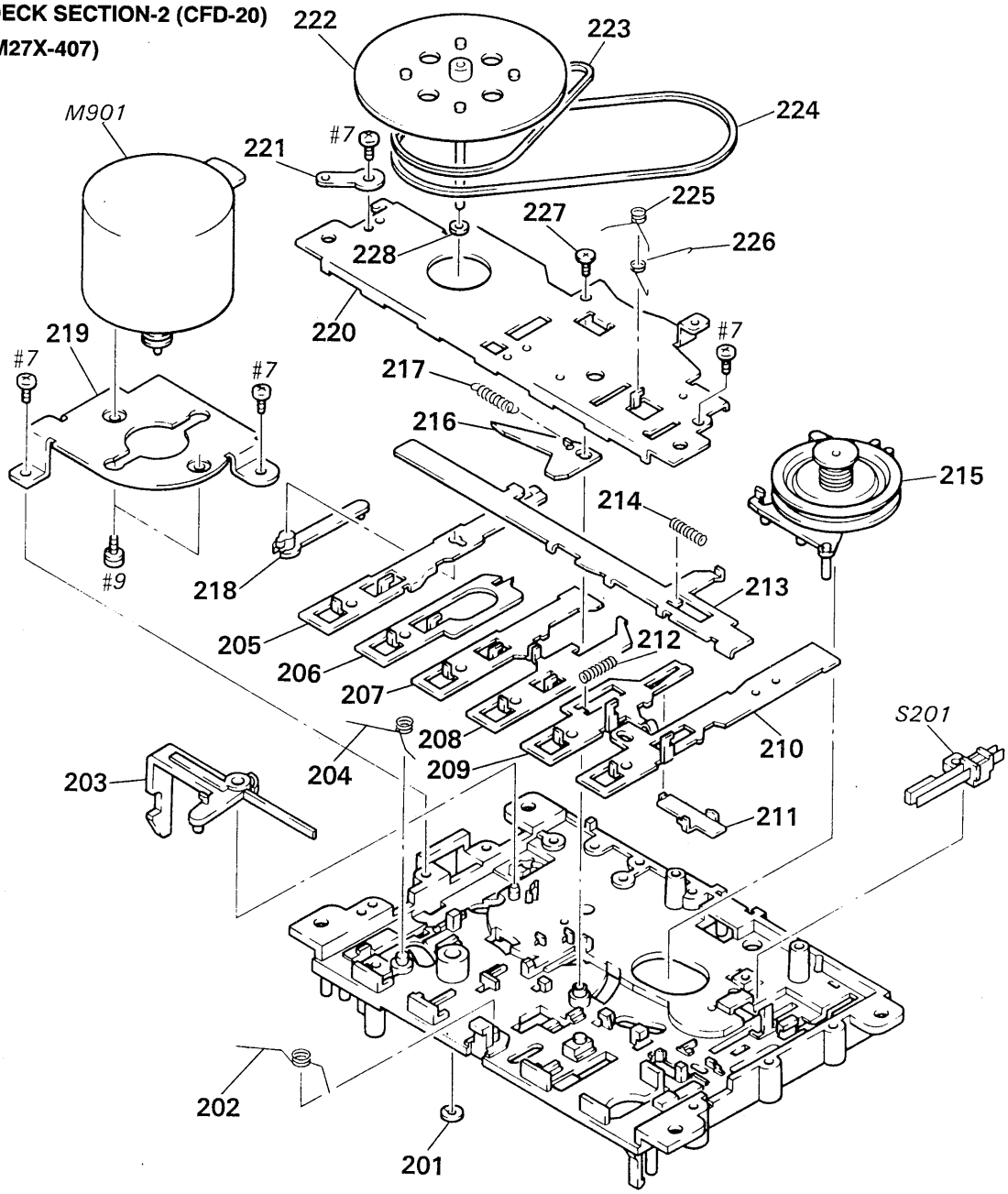
7-4. MECHANISM DECK SECTION-1 (CFD-20)
(MF-CFD-20:YM27X-407)



Ref. No.	Part No.	Description	Remark
151	3-391-055-01	E HEAD ARM	
* 152	4-895-015-01	HEAD BASE	
153	4-895-016-01	TAPE GUIDE	
154	4-894-956-01	TAPE SENSOR	
155	4-894-955-01	C SPRING	
156	3-390-823-01	WASHER, F	
157	3-390-817-01	LUG	
158	3-391-078-01	PINCH SPRING	
159	3-390-803-01	BUSHING (D)	
160	4-894-953-01	S REEL	
161	4-894-954-01	C SPRING	
162	4-894-960-01	BUSH	

Ref. No.	Part No.	Description	Remark
163	4-894-961-01	IDLER GEAR	
164	4-894-962-01	IDLER ARM	
165	4-894-964-01	F GEAR	
166	X-3391-004-1	T REEL ASSY	
* 167	3-390-838-01	SHAFT (W), BUTTON	
168	4-894-958-01	INTERLOCK ARM	
169	3-390-805-01	PINCH ARM ASSY	
170	4-894-966-01	SPRING	
171	4-894-968-01	CHASSIS ASSY	
172	4-894-967-01	SPRING	
HE901	1-543-558-11	ERASE HEAD	
HRP901	1-543-424-21	REC/PB HEAD	

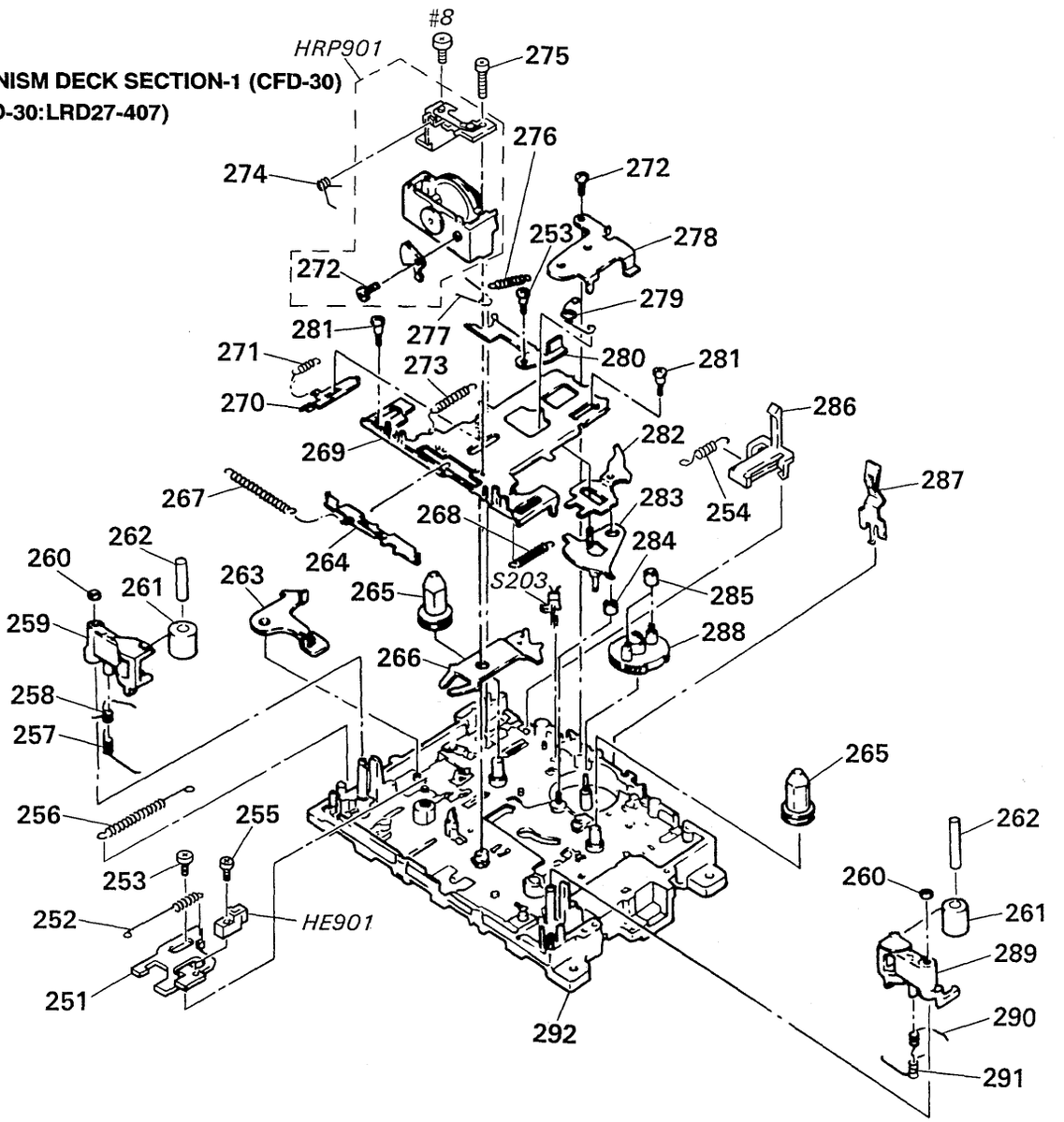
7-5. MECHANISM DECK SECTION-2 (CFD-20)
(MF-CFD-20:YM27X-407)



Ref. No.	Part No.	Description	Remark
201	4-894-969-01	N WASHER	
202	4-894-999-01	SPRING	
203	4-894-980-01	EJECT ARM	
204	4-894-989-01	SPRING	
* 205	4-894-986-01	PAUSE LEVER	
* 206	4-894-987-01	S.E LEVER	
* 207	3-391-052-01	FF LEVER	
* 208	3-391-051-01	REW LEVER	
* 209	3-391-053-01	PLAY LEVER	
210	4-894-994-01	REC LEVER	
211	3-390-811-01	LEVER, REC STOP	
212	3-390-827-01	SPRING	
* 213	4-894-984-01	FUNCTION LEVER	
214	4-894-983-01	C SPRING	
215	X-3391-003-1	POWER ARM ASSY	

Ref. No.	Part No.	Description	Remark
216	4-894-982-01	S ARM	
217	3-390-809-01	SPRING	
218	4-894-985-01	PAUSE ARM	
* 219	3-391-071-01	PLATE, MOTOR	
* 220	4-894-977-01	BACK PLATE	
221	3-391-047-01	EARTH LUG	
222	X-3391-002-1	FLYWHEEL ASSY	
223	3-395-914-01	BELT, SQUARE	
224	3-561-892-00	BELT, SQUARE	
225	4-894-978-01	SPRING	
226	3-369-935-01	SPRING, REC	
227	3-390-822-01	BUSHING (C)	
228	4-894-976-01	P WASHER	
M901	3-379-148-01	MOTOR ASSY (REEL/CAPSTAN)	
S201	1-572-394-11	SWITCH, LEAF (MAIN)	

7-6. MECHANISM DECK SECTION-1 (CFD-30)
(MF-CFD-30:LRD27-407)

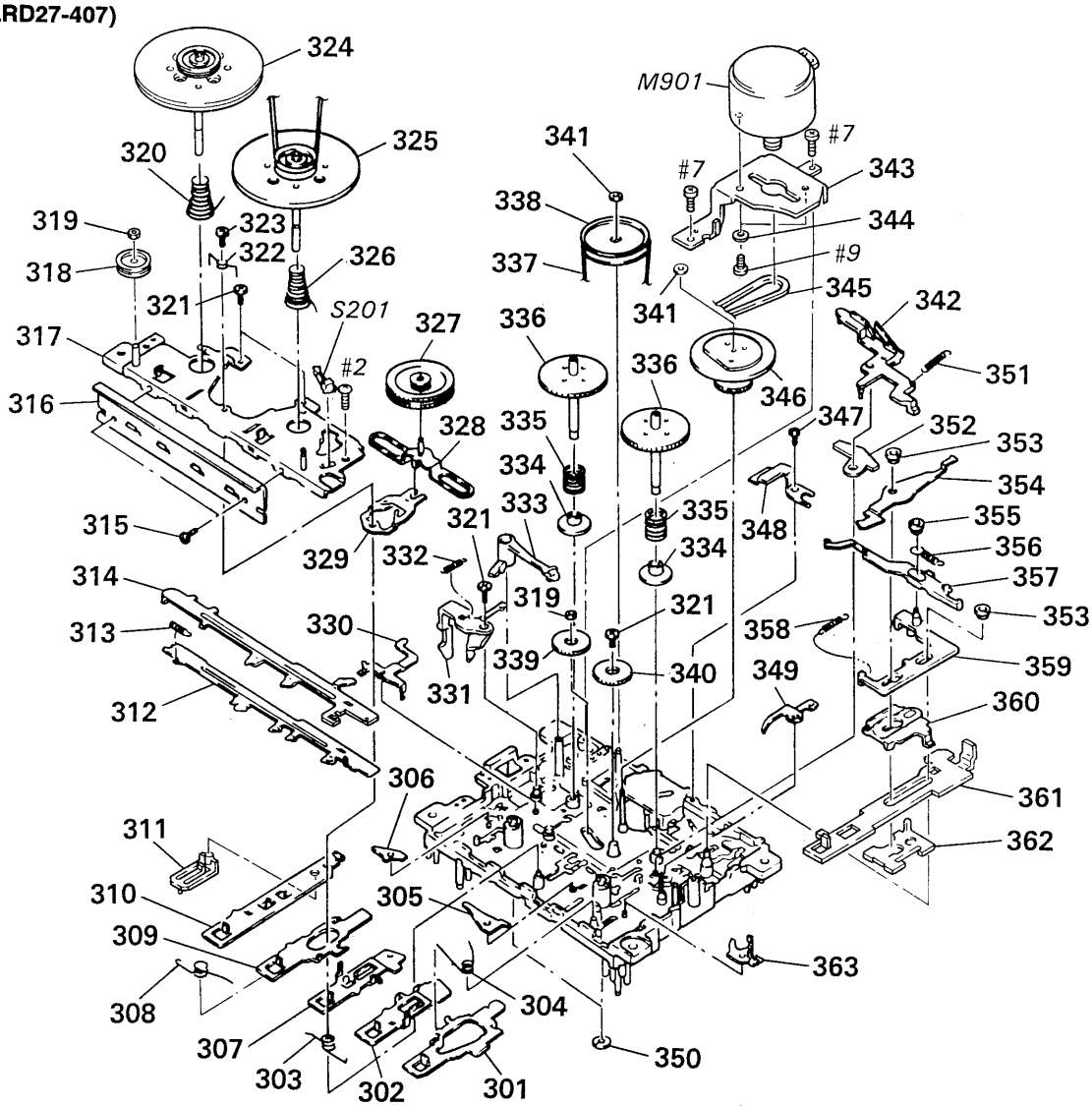


Ref. No.	Part No.	Description	Remark
* 251	3-379-191-01	HOLDER ERASE	
252	3-379-193-01	SPRING	
253	3-396-808-01	SCREW	
254	3-382-201-01	SPRING	
255	3-379-190-01	SCREW	
256	3-379-196-01	SPRING	
257	3-393-152-01	SPRING	
258	3-393-153-01	SPRING	
259	3-393-112-01	ARM PINCH-L	
260	3-393-227-01	WASHER	
261	3-393-149-01	ROLLER PINCH	
262	3-393-113-01	SHAFT	
* 263	3-369-951-01	PLATE, PROTECT REC	
* 264	3-369-937-01	PLATE ASSY, SLIDE	
265	3-391-086-01	CAP RELL	
* 266	3-391-090-01	PLATE REVERSE-C	
267	3-393-106-01	SPRING	
268	3-391-095-01	SPRING	
269	X-3391-009-1	ASSY HEAD CHASSIS	
* 270	3-369-941-01	LEVER, GEAR STOP	
271	3-369-942-01	SPRING	
272	4-894-960-01	BUSH	
273	3-391-096-01	SPRING	

Ref. No.	Part No.	Description	Remark
274	3-393-105-01	SPRING	
275	3-393-218-01	SCREW	
276	3-391-093-01	SPRING	
277	3-391-094-01	SPRING	
278	3-393-109-01	HOLDER GEAR	
279	3-363-223-01	SPRING	
* 280	3-391-092-01	PLATE MO JOINT	
281	3-393-221-01	SCREW	
* 282	3-391-091-01	PLATE REVERSE-D	
283	X-3391-008-1	ASSY IDLER PLATE	
284	3-369-952-01	COLLAR	
285	3-391-089-01	COLLER B	
286	4-894-958-01	INTERLOCK ARM	
287	3-393-209-01	PLATE SPRING	
288	X-3391-007-1	ASSY REVERSE GEAR C	
289	3-393-111-01	ARM PINCH-R	
290	3-393-151-01	SPRING	
291	3-393-150-01	SPRING	
* 292	X-3365-057-1	ASSY MECHA CHASSIS	
HE901	3-379-192-01	ERASE HEAD ASSY	
HRP901	X-3365-055-1	REC/PB HEAD ASSY	
S203	1-571-745-11	SWITCH, LEAF (FWD/RVS)	

7-7. MECHANISM DECK SECTION-2 (CFD-30)

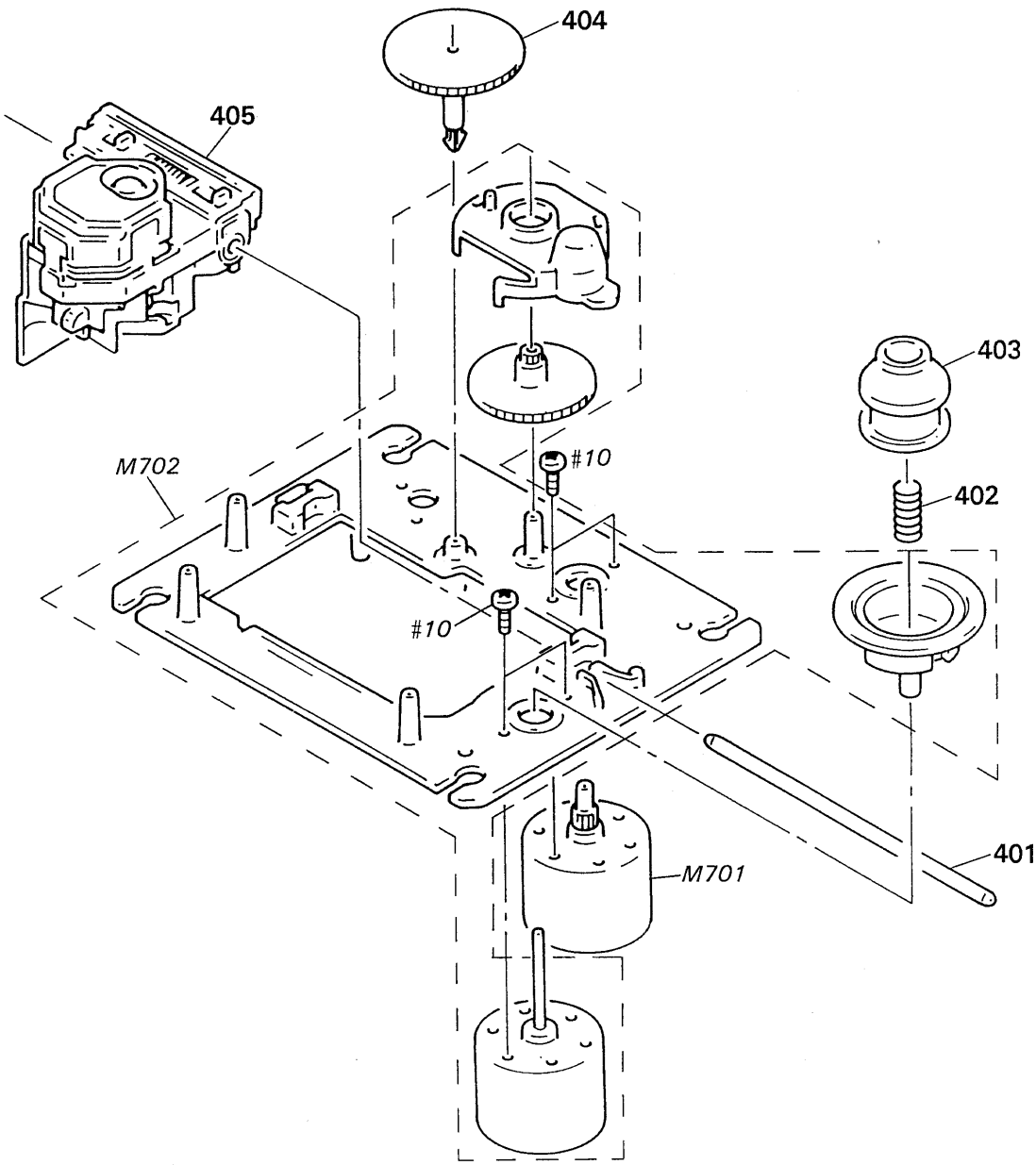
(MF-CFD-30:LRD27-407)



Ref. No.	Part No.	Description	Remark
* 301	3-393-171-01	LEVER PLAY B	
* 302	3-369-944-01	LEVER, REW	
303	3-393-165-01	SPRING	
304	3-393-167-01	SPRING	
305	3-393-170-01	ARM CUE STOP	
306	3-393-158-01	ARM PAUSE	
* 307	3-369-943-01	LEVER, FF	
308	3-393-159-01	SPRING	
309	3-393-160-01	LEVER STOP	
310	3-393-156-01	LEVER PAUSE	
311	3-393-157-01	ARM PAUSE STOP	
* 312	3-369-945-01	PLATE, FUNCTION (A)	
313	3-393-175-01	SPRING	
* 314	3-379-176-01	PLATE FUNCTION-B	
315	3-396-801-01	SCREW	
* 316	3-396-800-01	HOLDER	
* 317	X-3391-013-1	ASSY LEVER HOLDER C	
* 318	3-369-948-01	PULLEY	
319	3-393-225-01	WASHER	
320	3-393-206-01	SPRING	
321	4-894-960-01	BUSH	
322	3-382-202-01	SPRING	
323	3-393-221-01	SCREW	
324	X-3365-056-1	ASSY FLYWHEEL F	
325	X-3391-018-1	ASSY FLYWHEEL R	
326	3-393-205-01	SPRING	
327	X-3391-016-1	ASSY FF TENTION A	
328	X-3391-012-1	ASSY FF IDLER PLATE	
329	3-393-176-01	LEVER FF IDLER	
330	3-393-155-01	PLATE SENSER STOP	
331	3-396-773-01	LEVER EJECT	
332	3-393-179-01	SPRING	
333	3-393-190-01	ARM SENSER STOP	

Ref. No.	Part No.	Description	Remark
334	3-391-088-01	REEL BUSH-D	
335	3-391-087-01	SPRING	
336	3-391-085-01	GEAR RELL	
337	3-681-447-00	BELT	
338	3-393-191-01	PULLY DRIVE	
339	3-393-154-01	GEAR IDLER	
340	3-391-084-01	GEAR FWD	
341	3-393-226-01	WASHER	
* 342	3-393-182-01	LEVER DR	
* 343	3-379-180-01	HOLDER MOTOR	
344	3-379-181-01	WASHER NYLON	
345	3-379-150-01	BELT	
346	X-3391-015-1	TENTION ASSY	
347	3-396-791-01	SCREW	
348	3-396-790-01	PLATE SPRING DR	
349	3-393-169-01	PLATE SWITCH-C	
350	4-894-969-01	N WASHER	
351	3-393-177-01	SPRING	
* 352	3-379-195-01	ARM REC	
353	3-393-189-01	BUSH	
* 354	3-379-179-01	LEVER CANCEL	
355	3-379-197-01	BUSH	
356	3-379-178-01	SPRING	
* 357	3-393-185-01	LEVER SENSER-B	
358	3-393-187-01	SPRING	
* 359	3-393-184-01	LEVER SENSER	
* 360	3-393-181-01	LEVER MO	
* 361	3-379-194-01	LEVER REC	
* 362	3-393-180-01	PLATE MO	
363	3-393-168-01	PLATE SWITCH-A	
M901	3-379-149-01	MOTOR ASSY (REEL/CAPSTAN)	
S201	1-571-556-11	SWITCH, LEAF (MAIN)	

7-8. OPTICAL PICKUP BLOCK (KSM-2101BAM)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifé.

Ref. No.	Part No.	Description	Remark
401	4-917-565-01	SHAFT (K), SLED	
402	2-625-191-01	SPRING (K), COMPRESSION	
403	2-625-186-01	RING (C) (K), CENTER	
404	2-625-188-02	GEAR (A) (K)	
⚠405	8-848-137-11	PICKUP, OPTICAL KSS-210B	
M701	X-2625-132-1	MOTOR GEAR ASSY (MB) (SLED)	
M702	X-2625-133-2	MOTOR ASSY, SPINDLE(TT CHASSIS ASSY(MB))	

SECTION 8
ELECTRICAL PARTS LIST

AUDIO

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spéci-fie.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- −XX, −X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL : metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA... : μA... , uPA... , μPA... , uPB... , μPB... , uPC... , μPC... , uPD..., μPD...
- CAPACITORS :
  uF : μF
- COILS
  uH : μH
- CND : Canadian model
- IT : Italian model

Ref. No.	Part No.	Description			Remarks
*	A-3262-671-A	AUDIO BOARD, COMPLETE (CFD-30)			
		**********			
*	A-3262-694-A	AUDIO BOARD, COMPLETE (CFD-20)			
		**********			
	3-380-070-01	KNOB, LEVER			
	3-380-070-11	KNOB, LEVER			
	3-380-070-21	KNOB, LEVER			
	3-380-095-11	KNOB, CD (A)			
		< CAPACITOR >			
C101	1-124-126-00	ELECT	47uF	20%	10V
C102	1-162-291-31	CERAMIC	560PF	10%	50V
C103	1-130-488-00	MYLAR	0.027uF	5%	50V
C104	1-162-291-31	CERAMIC	560PF	10%	50V
C105	1-130-473-00	MYLAR	0.0015uF	5%	50V
C106	1-124-925-11	ELECT	2.2uF	20%	100V
C107	1-124-903-11	ELECT	1uF	20%	50V
C108	1-162-292-31	CERAMIC	680PF	10%	50V
C109	1-130-486-00	MYLAR	0.018uF	10%	50V
C110	1-162-215-31	CERAMIC	47PF	5%	50V
C114	1-162-282-31	CERAMIC	100PF	10%	50V
C117	1-162-292-31	CERAMIC	680PF	10%	50V
C121	1-162-282-31	CERAMIC	100PF	10%	50V
C122	1-124-903-11	ELECT	1uF	20%	50V
C123	1-124-903-11	ELECT	1uF	20%	50V
C124	1-162-282-31	CERAMIC	100PF	10%	50V
C125	1-124-903-11	ELECT	1uF	20%	50V
C126	1-124-903-11	ELECT	1uF	20%	50V
C139	1-162-286-31	CERAMIC	220PF	10%	50V
C201	1-162-282-31	CERAMIC	100PF	10%	50V
C202	1-124-903-11	ELECT	1uF	20%	50V
C203	1-126-157-11	ELECT	10uF	20%	16V
C205	1-124-927-11	ELECT	4.7uF	20%	100V
C206	1-124-907-11	ELECT	10uF	20%	50V
C207	1-124-907-11	ELECT	10uF	20%	50V
C208	1-124-443-00	ELECT	100uF	20%	10V
C209	1-124-126-00	ELECT	47uF	20%	10V
C210	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C211	1-130-487-00	MYLAR	0.022uF	5%	50V
C212	1-130-471-00	MYLAR	0.001uF	5%	50V
C213	1-124-443-00	ELECT	100uF	20%	10V
C214	1-162-286-31	CERAMIC	220PF	10%	50V
C215	1-162-290-31	CERAMIC	470PF	10%	50V
C216	1-130-471-00	MYLAR	0.001uF	5%	50V
C217	1-124-916-11	ELECT	22uF	20%	63V
C219	1-124-443-00	ELECT	100uF	20%	10V
C220	1-123-382-00	ELECT	3.3uF	20%	100V
C221	1-124-916-11	ELECT	22uF	20%	63V
C222	1-124-916-11	ELECT	22uF	20%	63V
C226	1-124-907-11	ELECT	10uF	20%	50V
C230	1-124-443-00	ELECT	100uF	20%	10V
C247	1-126-157-11	ELECT	10uF	20%	16V
C255	1-161-379-00	CERAMIC	0.01uF	20%	25V
C301	1-124-126-00	ELECT	47uF	20%	10V
C302	1-162-291-31	CERAMIC	560PF	10%	50V
C303	1-130-488-00	MYLAR	0.027uF	5%	50V
C304	1-162-291-31	CERAMIC	560PF	10%	50V
C305	1-130-473-00	MYLAR	0.0015uF	5%	50V
C306	1-124-925-11	ELECT	2.2uF	20%	100V
C307	1-124-903-11	ELECT	1uF	20%	50V
C308	1-162-292-31	CERAMIC	680PF	10%	50V
C309	1-130-486-00	MYLAR	0.018uF	10%	50V
C310	1-162-215-31	CERAMIC	47PF	5%	50V
C314	1-162-282-31	CERAMIC	100PF	10%	50V
C317	1-162-292-31	CERAMIC	680PF	10%	50V
C321	1-162-282-31	CERAMIC	100PF	10%	50V
C322	1-124-903-11	ELECT	1uF	20%	50V
C323	1-124-903-11	ELECT	1uF	20%	50V
C324	1-162-282-31	CERAMIC	100PF	10%	50V
C325	1-124-903-11	ELECT	1uF	20%	50V
C326	1-124-903-11	ELECT	1uF	20%	50V
C339	1-162-286-31	CERAMIC	220PF	10%	50V

AUDIO

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
* CN101	1-580-047-11	CONNECTOR 3P	
* CN102	1-580-048-11	CONNECTOR 4P (CFD-20)	
* CN102	1-573-597-11	CONNECTOR 3P (CFD-30)	
* CN103	1-695-145-11	CONNECTOR 5P	
* CN104	1-695-144-11	CONNECTOR 13P	
* CN106	1-695-055-11	HOUSING, CONNECTOR 6P	
* CN107	1-695-055-11	HOUSING, CONNECTOR 6P	
* CN109	1-695-146-11	CONNECTOR 3P	
* CN110	1-580-048-11	CONNECTOR 4P (CFD-20)	
* CN110	1-695-139-11	CONNECTOR 6P (CFD-30)	
		< DIODE >	
D205	8-719-200-02	DIODE 10E2	
D206	8-719-107-94	DIODE 1SS202-1	
D207	8-719-107-94	DIODE 1SS202-1	
D208	8-719-107-94	DIODE 1SS202-1	
		< IC >	
IC201	8-759-231-22	IC TA7417AP	
IC202	8-759-106-41	IC uPC4570C	
IC203	8-759-076-52	IC GL4558	
		< JACK >	
J203	1-563-330-11	JACK (MIX MIC)	
		< COIL >	
L201	1-410-322-11	INDUCTOR 3.3uH	
L202	1-410-515-11	INDUCTOR 33uH	
		< TRANSISTOR >	
Q101	8-729-016-64	TRANSISTOR KTD1302	
Q202	8-729-900-80	TRANSISTOR DTC114ES	
Q203	8-729-900-61	TRANSISTOR DTA114ES	
Q204	8-729-900-80	TRANSISTOR DTC114ES	
Q205	8-729-900-80	TRANSISTOR DTC114ES	
Q206	8-729-900-80	TRANSISTOR DTC114ES	
Q207	8-729-900-61	TRANSISTOR DTA114ES	
Q208	8-729-900-80	TRANSISTOR DTC114ES	
Q209	8-729-231-83	TRANSISTOR 2SC1959	
Q301	8-729-016-64	TRANSISTOR KTD1302	
		< RESISTOR >	
R101	1-249-406-11	CARBON 120 5% 1/4W	F
R102	1-249-426-11	CARBON 5.6K 5% 1/4W	
R103	1-249-440-11	CARBON 82K 5% 1/4W	
R104	1-249-432-11	CARBON 18K 5% 1/4W	
R105	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R106	1-249-434-11	CARBON 27K 5% 1/4W	
R108	1-249-441-11	CARBON 100K 5% 1/4W	
R109	1-249-429-11	CARBON 10K 5% 1/4W	
R110	1-249-434-11	CARBON 27K 5% 1/4W	
R112	1-249-429-11	CARBON 10K 5% 1/4W	
R113	1-249-414-11	CARBON 560 5% 1/4W	F
R120	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R121	1-249-436-11	CARBON 39K 5% 1/4W	
R122	1-249-426-11	CARBON 5.6K 5% 1/4W	
R123	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R124	1-247-867-11	CARBON 33K 5% 1/4W	
R125	1-249-437-11	CARBON 47K 5% 1/4W	
R126	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R127	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R201	1-249-437-11	CARBON 47K 5% 1/4W	
R202	1-249-437-11	CARBON 47K 5% 1/4W	
R212	1-249-422-11	CARBON 2.7K 5% 1/4W	F
R214	1-249-429-11	CARBON 10K 5% 1/4W	
R215	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R216	1-249-432-11	CARBON 18K 5% 1/4W	
R217	1-259-880-11	CARBON 2.2M 5% 1/6W	
R218	1-249-429-11	CARBON 10K 5% 1/4W	
R219	1-249-407-11	CARBON 150 5% 1/4W	F
R220	1-249-393-11	CARBON 10 5% 1/4W	F
R221	1-249-429-11	CARBON 10K 5% 1/4W	
R222	1-249-411-11	CARBON 330 5% 1/4W	
R223	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R225	1-249-417-11	CARBON 1K 5% 1/4W	F
R247	1-249-437-11	CARBON 47K 5% 1/4W	
R248	1-249-437-11	CARBON 47K 5% 1/4W	
R301	1-249-406-11	CARBON 120 5% 1/4W	F
R302	1-249-426-11	CARBON 5.6K 5% 1/4W	
R303	1-249-440-11	CARBON 82K 5% 1/4W	
R304	1-249-432-11	CARBON 18K 5% 1/4W	
R305	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R306	1-249-434-11	CARBON 27K 5% 1/4W	
R308	1-249-441-11	CARBON 100K 5% 1/4W	
R309	1-249-429-11	CARBON 10K 5% 1/4W	
R310	1-249-434-11	CARBON 27K 5% 1/4W	
R312	1-249-429-11	CARBON 10K 5% 1/4W	
R313	1-249-414-11	CARBON 560 5% 1/4W	F
R320	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R321	1-249-436-11	CARBON 39K 5% 1/4W	
R322	1-249-426-11	CARBON 5.6K 5% 1/4W	
R323	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R324	1-247-867-11	CARBON 33K 5% 1/4W	
R325	1-249-437-11	CARBON 47K 5% 1/4W	
R326	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R327	1-249-425-11	CARBON 4.7K 5% 1/4W	F

REVISED

Ref. No.	Part No.	Description	Remarks
		< VARIABLE RESISTOR >	
RV201	1-241-927-11	RES, VAR, CARBON 50K/50K (VOLUME)	
RV202	1-241-928-11	RES, VAR, CARBON 50K/50K (TONE)	
		< SWITCH >	
S101	1-692-173-11	SWITCH, LEVER (FUNCTION)	
S103	1-692-170-11	SWITCH, SLIDE (ISS/FM MODE)	
		< TRANSFORMER >	
T101	1-433-399-11	COIL, BIAS OSCILLATION	
**********			
	1-644-027-11	BATTERY BOARD	
		**********	
	3-380-067-01	SPRING, BATT (-)	
		< CONNECTOR >	
* CN910	1-695-151-11	CONNECTOR 2P	
**********			
*	1-644-032-11	CD CONTROL BOARD	
		**********	
* CN807	1-695-058-11	CONNECTOR 29P	
		< DIODE >	
D801	8-719-938-69	LED SLR-34VR3F (REW) (CFD-30)	
D802	8-719-938-69	LED SLR-34VR3F (FWD)	
D803	8-719-107-94	DIODE 1SS202-1 (CFD-30)	
		< LIQUID CRYSTAL DISPLAY >	
LCD1	1-808-930-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< RESISTOR >	
R801	1-249-416-11	CARBON 820 5% 1/4W F (CFD-30)	
R802	1-249-416-11	CARBON 820 5% 1/4W F	
R803	1-249-410-11	CARBON 270 5% 1/4W F	
R804	1-249-410-11	CARBON 270 5% 1/4W F (CFD-30)	
		< SWITCH >	
S801	1-692-178-11	SWITCH, TACT (PLAY)	
S802	1-692-178-11	SWITCH, TACT (STOP)	
S803	1-692-178-11	SWITCH, TACT (REW)	
S804	1-692-178-11	SWITCH, TACT (FF)	
S805	1-692-178-11	SWITCH, TACT (PAUSE)	
S806	1-692-178-11	SWITCH, TACT (PLAY MODE)	
S807	1-692-178-11	SWITCH, TACT (REMAIN/ENTER)	
**********			
*	A-3275-519-A	CD MAIN BOARD, COMPLETE	
		**********	
		< CAPACITOR >	

C700	1-162-197-31	CERAMIC	6.8PF	10% 50V
C701	1-161-375-00	CERAMIC	0.0022uF	20% 50V
C702	1-124-034-51	ELECT	33uF	20% 16V
C703	1-124-443-00	ELECT	100uF	20% 10V
C704	1-161-379-00	CERAMIC	0.01uF	20% 25V
C705	1-130-489-00	MYLAR	0.033uF	5% 50V
C706	1-124-443-00	ELECT	100uF	20% 10V
C707	1-161-379-00	CERAMIC	0.01uF	20% 25V
C708	1-161-379-00	CERAMIC	0.01uF	20% 25V
C709	1-130-489-00	MYLAR	0.033uF	5% 50V
C710	1-161-377-00	CERAMIC	0.0047uF	30% 16V
C711	1-161-379-00	CERAMIC	0.01uF	20% 25V
C712	1-161-375-00	CERAMIC	0.0022uF	20% 50V
C713	1-130-491-00	MYLAR	0.047uF	5% 50V
C714	1-161-379-00	CERAMIC	0.01uF	20% 25V
C715	1-161-329-00	CERAMIC	0.0068uF	30% 16V
C716	1-162-294-31	CERAMIC	0.001uF	10% 50V
C717	1-126-157-11	ELECT	10uF	20% 16V
C718	1-130-493-00	MYLAR	0.068uF	5% 50V
C719	1-162-284-31	CERAMIC	150PF	10% 50V
C720	1-162-215-31	CERAMIC	47PF	5% 50V
C722	1-124-034-51	ELECT	33uF	20% 16V
C723	1-130-495-00	MYLAR	0.1uF	5% 50V
C724	1-124-034-51	ELECT	33uF	20% 16V
C725	1-126-157-11	ELECT	10uF	20% 16V
C726	1-130-495-00	MYLAR	0.1uF	5% 50V
C727	1-130-495-00	MYLAR	0.1uF	5% 50V
C728	1-124-034-51	ELECT	33uF	20% 16V
C729	1-161-379-00	CERAMIC	0.01uF	20% 25V
C730	1-162-294-31	CERAMIC	0.001uF	10% 50V
C731	1-161-379-00	CERAMIC	0.01uF	20% 25V
C732	1-161-379-00	CERAMIC	0.01uF	20% 25V
C733	1-124-034-51	ELECT	33uF	20% 16V
C734	1-124-034-51	ELECT	33uF	20% 16V
C735	1-124-902-00	ELECT	0.47uF	20% 50V
C736	1-124-034-51	ELECT	33uF	20% 16V
C737	1-130-489-00	MYLAR	0.033uF	5% 50V
C738	1-124-927-11	ELECT	4.7uF	20% 100V
C739	1-124-903-11	ELECT	1uF	20% 50V
C740	1-161-379-00	CERAMIC	0.01uF	20% 25V

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* 1-644-031-11 CD LEAF SW BOARD
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* CN804 1-695-143-11 CONNNECTOR, 2P

S801 1-692-171-11 SWITCH (DOOR)

CD MAIN

Ref. No.	Part No.	Description			Remarks
C741	1-161-379-00	CERAMIC	0.01uF	20%	25V
C742	1-124-902-00	ELECT	0.47uF	20%	50V
C743	1-161-379-00	CERAMIC	0.01uF	20%	25V
C744	1-124-472-11	ELECT	470uF	20%	10V
C745	1-162-207-31	CERAMIC	22PF	5%	50V
C746	1-162-207-31	CERAMIC	22PF	5%	50V
C747	1-126-176-11	ELECT	220uF	20%	10V
C748	1-161-379-00	CERAMIC	0.01uF	20%	25V
C749	1-162-219-31	CERAMIC	68PF	5%	50V
C750	1-162-219-31	CERAMIC	68PF	5%	50V
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V
C752	1-124-443-00	ELECT	100uF	20%	10V
C753	1-162-199-31	CERAMIC	10PF	5%	50V
C754	1-162-199-31	CERAMIC	10PF	5%	50V
C755	1-124-903-11	ELECT	1uF	20%	50V
C756	1-124-360-00	ELECT	1000uF	20%	16V
C757	1-162-292-31	CERAMIC	680PF	10%	50V
C758	1-162-215-31	CERAMIC	47PF	5%	50V
C759	1-162-215-31	CERAMIC	47PF	5%	50V
C760	1-124-443-00	ELECT	100uF	20%	10V
C762	1-162-294-31	CERAMIC	0.001uF	10%	50V
C763	1-161-379-00	CERAMIC	0.01uF	20%	25V
C764	1-124-443-00	ELECT	100uF	20%	10V
C765	1-162-282-31	CERAMIC	100PF	10%	50V
C766	1-162-282-31	CERAMIC	100PF	10%	50V
C767	1-161-379-00	CERAMIC	0.01uF	20%	25V
C768	1-161-379-00	CERAMIC	0.01uF	20%	25V
C769	1-161-379-00	CERAMIC	0.01uF	20%	25V
C770	1-161-379-00	CERAMIC	0.01uF	20%	25V
C771	1-124-903-11	ELECT	1uF	20%	50V
C772	1-124-903-11	ELECT	1uF	20%	50V
C773	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C774	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C775	1-162-294-31	CERAMIC	0.001uF	10%	50V
C776	1-162-294-31	CERAMIC	0.001uF	10%	50V
C777	1-162-215-31	CERAMIC	47PF	5%	50V
C778	1-162-215-31	CERAMIC	47PF	5%	50V
C779	1-124-443-00	ELECT	100uF	20%	10V
C780	1-124-903-11	ELECT	1uF	20%	50V
C781	1-124-903-11	ELECT	1uF	20%	50V
C782	1-124-443-00	ELECT	100uF	20%	10V
C783	1-126-157-11	ELECT	10uF	20%	16V
C784	1-126-157-11	ELECT	10uF	20%	16V
C785	1-130-493-00	MYLAR	0.068uF	5%	50V
C786	1-130-493-00	MYLAR	0.068uF	5%	50V
C787	1-124-903-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
* CN701	1-695-138-11	CONNECTOR 8P	
* CN702	1-695-137-11	CONNECTOR 8P	
* CN703	1-695-152-11	CONNECTOR 6P	
* CN704	1-580-046-11	CONNECTOR 2P	
* CN705	1-695-056-11	PLUG, CONNECTOR 6P	
* CN706	1-695-056-11	PLUG, CONNECTOR 6P	
* CN707	1-695-058-11	CONNECTOR 29P	
		< DIODE >	
D701	8-719-107-94	DIODE 1SS202-1	
D702	8-719-107-94	DIODE 1SS202-1	
D703	8-719-107-94	DIODE 1SS202-1	
D704	8-719-107-94	DIODE 1SS202-1	
D705	8-719-107-94	DIODE 1SS202-1	
D706	8-719-107-94	DIODE 1SS202-1	
D707	8-719-107-94	DIODE 1SS202-1	
D708	8-719-107-94	DIODE 1SS202-1	
		< IC >	
IC701	8-752-055-04	IC CXA1081S	
IC702	8-752-032-33	IC CXA1182S	
IC703	8-752-328-46	IC CXD1130Q	
IC704	8-759-076-43	IC GM76C28	
IC705	8-752-819-88	IC CXP5084-624Q	
IC706	8-759-501-65	IC BA6294	
IC707	8-759-501-65	IC BA6294	
IC708	8-759-148-89	IC uPD6376CX	
IC709	8-759-076-52	IC GL4558	
IC710	8-759-076-44	IC KIA7039P	
IC712	8-759-076-52	IC GL4558	
		< TRANSISTOR >	
Q701	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q702	8-729-206-21	TRANSISTOR RN1003	
Q703	8-729-206-21	TRANSISTOR RN1003	
Q704	8-729-281-53	TRANSISTOR KSC900-L	
Q705	8-729-206-28	TRANSISTOR RN1210	
Q706	8-729-900-36	TRANSISTOR DTC124ES	
Q708	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q751	8-729-206-28	TRANSISTOR RN1210	
Q752	8-729-206-28	TRANSISTOR RN1210	
Q753	8-729-206-28	TRANSISTOR RN1210	
Q754	8-729-206-28	TRANSISTOR RN1210	
Q755	8-729-900-36	TRANSISTOR DTC124ES	
Q756	8-729-281-53	TRANSISTOR KSC900-L	
Q757	8-729-900-36	TRANSISTOR DTC124ES	
Q758	8-729-206-28	TRANSISTOR RN1210	

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R701	1-249-433-11	CARBON	22K	5% 1/4W	
R702	1-249-417-11	CARBON	1K	5% 1/4W	F
R703	1-249-433-11	CARBON	22K	5% 1/4W	
R704	1-249-417-11	CARBON	1K	5% 1/4W	F
R706	1-249-417-11	CARBON	1K	5% 1/4W	F
R707	1-247-883-00	CARBON	150K	5% 1/4W	
R708	1-249-429-11	CARBON	10K	5% 1/4W	
R709	1-249-441-11	CARBON	100K	5% 1/4W	
R710	1-249-437-11	CARBON	47K	5% 1/4W	
R711	1-249-438-11	CARBON	56K	5% 1/4W	
R712	1-247-885-00	CARBON	180K	5% 1/4W	
R713	1-249-441-11	CARBON	100K	5% 1/4W	
R715	1-249-429-11	CARBON	10K	5% 1/4W	
R716	1-249-441-11	CARBON	100K	5% 1/4W	
R717	1-247-895-00	CARBON	470K	5% 1/4W	
R718	1-249-437-11	CARBON	47K	5% 1/4W	
R719	1-247-886-11	CARBON	200K	5% 1/4W	
R720	1-249-422-11	CARBON	2.7K	5% 1/4W	F
R721	1-249-428-11	CARBON	8.2K	5% 1/4W	F
R722	1-247-903-00	CARBON	1M	5% 1/4W	
R723	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R724	1-249-417-11	CARBON	1K	5% 1/4W	F
R725	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R726	1-247-867-11	CARBON	33K	5% 1/4W	
R727	1-249-437-11	CARBON	47K	5% 1/4W	
R728	1-249-429-11	CARBON	10K	5% 1/4W	
R729	1-249-441-11	CARBON	100K	5% 1/4W	
R730	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R731	1-247-867-11	CARBON	33K	5% 1/4W	
R732	1-249-429-11	CARBON	10K	5% 1/4W	
R733	1-249-441-11	CARBON	100K	5% 1/4W	
R734	1-247-807-11	CARBON	100	5% 1/4W	
R735	1-249-437-11	CARBON	47K	5% 1/4W	
R736	1-249-437-11	CARBON	47K	5% 1/4W	
R737	1-249-417-11	CARBON	1K	5% 1/4W	F
R738	1-249-437-11	CARBON	47K	5% 1/4W	
R739	1-247-807-11	CARBON	100	5% 1/4W	
R740	1-249-441-11	CARBON	100K	5% 1/4W	
R741	1-247-807-11	CARBON	100	5% 1/4W	
R742	1-249-441-11	CARBON	100K	5% 1/4W	
R743	1-249-441-11	CARBON	100K	5% 1/4W	
R744	1-247-867-11	CARBON	33K	5% 1/4W	
R745	1-247-867-11	CARBON	33K	5% 1/4W	
R746	1-247-867-11	CARBON	33K	5% 1/4W	
R747	1-249-410-11	CARBON	270	5% 1/4W	F
R748	1-249-429-11	CARBON	10K	5% 1/4W	
R751	1-247-806-11	CARBON	91	5% 1/4W	
R752	1-249-397-11	CARBON	22	5% 1/4W	F

Ref. No.	Part No.	Description			Remarks
R753	1-247-807-11	CARBON	100	5% 1/4W	
R754	1-247-867-11	CARBON	33K	5% 1/4W	
R755	1-247-876-11	CARBON	75K	5% 1/4W	
R756	1-215-457-00	METAL	33K	1% 1/6W	
R757	1-215-453-00	METAL	22K	1% 1/6W	
R758	1-215-457-00	METAL	33K	1% 1/6W	
R759	1-215-453-00	METAL	22K	1% 1/6W	
R760	1-249-417-11	CARBON	1K	5% 1/4W	F
R761	1-247-893-11	CARBON	390K	5% 1/4W	
R762	1-215-453-00	METAL	22K	1% 1/6W	
R763	1-215-457-00	METAL	33K	1% 1/6W	
R764	1-215-453-00	METAL	22K	1% 1/6W	
R765	1-249-436-11	CARBON	39K	5% 1/4W	
R766	1-215-457-00	METAL	33K	1% 1/6W	
R767	1-247-867-11	CARBON	33K	5% 1/4W	
R768	1-215-429-00	METAL	2.2K	1% 1/6W	
R769	1-215-433-00	METAL	3.3K	1% 1/6W	
R770	1-247-895-00	CARBON	470K	5% 1/4W	
R771	1-249-441-11	CARBON	100K	5% 1/4W	
R772	1-249-441-11	CARBON	100K	5% 1/4W	
R773	1-249-395-11	CARBON	15	5% 1/4W	F
R774	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R775	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R776	1-249-437-11	CARBON	47K	5% 1/4W	
R777	1-249-437-11	CARBON	47K	5% 1/4W	
R778	1-249-437-11	CARBON	47K	5% 1/4W	
R779	1-249-437-11	CARBON	47K	5% 1/4W	
R780	1-249-433-11	CARBON	22K	5% 1/4W	
R781	1-249-433-11	CARBON	22K	5% 1/4W	
R782	1-249-427-11	CARBON	6.8K	5% 1/4W	F
R783	1-249-429-11	CARBON	10K	5% 1/4W	
R784	1-247-887-00	CARBON	220K	5% 1/4W	
R785	1-247-887-00	CARBON	220K	5% 1/4W	
R786	1-249-395-11	CARBON	15	5% 1/4W	F
R787	1-249-414-11	CARBON	560	5% 1/4W	F
R788	1-249-414-11	CARBON	560	5% 1/4W	F
R789	1-249-409-11	CARBON	220	5% 1/4W	F
R790	1-249-409-11	CARBON	220	5% 1/4W	F
R791	1-247-867-11	CARBON	33K	5% 1/4W	
R792	1-247-867-11	CARBON	33K	5% 1/4W	
R793	1-249-433-11	CARBON	22K	5% 1/4W	
R794	1-247-895-00	CARBON	470K	5% 1/4W	
		< VARIABLE RESISTOR >			
RV701	1-241-931-11	RES, ADJ, CARBON	22K		
RV702	1-241-931-11	RES, ADJ, CARBON	22K		
RV703	1-241-931-11	RES, ADJ, CARBON	22K		
RV704	1-241-933-11	RES, ADJ, CARBON	2.2K		
RV705	1-241-931-11	RES, ADJ, CARBON	22K		

CD MAIN | POWER

REVISED

Ref. No.	Part No.	Description			Remarks
		< VIBRATOR >			
X701	1-579-633-11	OSCILLATOR, CRYSTAL 8.4672MHz			
X702	1-579-634-11	OSCILLATOR, CERAMIC 3.58MHz			
**********					
*	A-3262-673-A	POWER BOARD, COMPLETE (CFD-30:E)			
		**********			
*	A-3262-695-A	POWER BOARD, COMPLETE			
		**********			
		(CFD-20:US, CND/CFD-30:US)			
*	A-3262-718-A	POWER BOARD, COMPLETE (CFD-20:AEP, IT)			
		**********			
⚠	1-533-243-11	HOLDER, FUSE			
	3-380-072-01	KNOB, B/B			
	3-380-072-11	KNOB B/B			
	3-380-072-21	KNOB B/B			
	7-682-546-04	SCREW +PTT 3X5 (S)			
		< CAPACITOR >			
C130	1-130-495-00	MYLAR	0.1uF	5%	50V
C181	1-124-903-11	ELECT	1uF	20%	50V
C182	1-162-294-31	CERAMIC	0.001uF	10%	50V
C183	1-162-288-31	CERAMIC	330PF	10%	50V
C184	1-124-443-00	ELECT	100uF	20%	10V
C185	1-124-360-00	ELECT	1000uF	20%	16V
			(CFD-20:US, CND/CFD-30)		
C185	1-124-893-11	ELECT	2200uF	20%	10V
			(CFD-20:AEP, IT)		
C186	1-124-443-00	ELECT	100uF	20%	10V
C187	1-130-497-00	MYLAR	0.15uF	5%	50V
C189	1-124-893-11	ELECT	2200uF	20%	10V
			(CFD-20:AEP, IT)		
C270	1-126-101-11	ELECT	100uF	20%	16V
C271	1-126-101-11	ELECT	100uF	20%	16V
C273	1-124-360-00	ELECT	1000uF	20%	16V
C274	1-124-472-11	ELECT	470uF	20%	10V
C330	1-130-495-00	MYLAR	0.1uF	5%	50V
C381	1-124-903-11	ELECT	1uF	20%	50V
C382	1-162-294-31	CERAMIC	0.001uF	10%	50V
C383	1-162-288-31	CERAMIC	330PF	10%	50V
C384	1-124-443-00	ELECT	100uF	20%	10V
C385	1-124-360-00	ELECT	1000uF	20%	16V
			(CFD-20:US, CND/CFD-30)		
C385	1-124-893-11	ELECT	2200uF	20%	10V
			(CFD-20:AEP, IT)		
C386	1-124-443-00	ELECT	100uF	20%	10V
C387	1-130-497-00	MYLAR	0.15uF	5%	50V
C389	1-124-893-11	ELECT	2200uF	20%	10V
			(CFD-20:AEP, IT)		
C901	1-161-494-00	CERAMIC	0.022uF		25V
C902	1-161-494-00	CERAMIC	0.022uF		25V
C903	1-161-494-00	CERAMIC	0.022uF		25V
C904	1-161-494-00	CERAMIC	0.022uF		25V
C905	1-124-636-00	ELECT	3300uF	20%	25V
			(CFD-20:US, CND/CFD-30)		
C905	1-124-887-00	ELECT	3300uF	20%	16V
			(CFD-20:AEP, IT)		
C906	1-130-497-00	MYLAR	0.15uF	5%	50V
			(CFD-20:AEP, IT)		
		< CONNECTOR >			
* CN204	1-695-140-11	CONNECTOR 13P			
* CN205	1-573-596-11	WAFER, CONNECTOR 4P			
* CN209	1-580-047-11	CONNECTOR 3P			
* CN901	1-695-141-11	CONNECTOR 4P			
* CN902	1-695-142-11	CONNECTOR 3P			
* CN903	1-580-046-11	CONNECTOR 2P			
		< DIODE >			
D201	8-719-989-16	DIODE 1S2472			
D202	8-719-160-34	DIODE RD6.8F-B2			
D203	8-719-989-16	DIODE 1S2472			
D204	8-719-109-89	DIODE RD5.6ES-B2			
D209	8-719-989-16	DIODE 1S2472			
⚠D901	8-719-028-07	DIODE PBM203			
		< FUSE >			
⚠F902	1-532-826-11	FUSE, GLASS TUBE (2.5A)			
		(CFD-20:US, CND/CFD-30:US)			
⚠F902	1-532-286-00	FUSE, TIME-LAG (2.5A) (CFD-20:AEP, IT)			
⚠F902	1-532-456-XX	FUSE, GLASS TUBE (2.5A) (CFD-30:E)			
		< IC >			
IC204	8-759-230-13	IC TA8207K			
		< JACK >			
J202	1-507-806-00	JACK 1P			
⚠J901	1-540-009-11	INLET, AC (~AC IN)			
		(CFD-20:US, CND/CFD-30:US)			
⚠J901	1-526-838-11	INLET, AC 2P (~AC IN) (CFD-20:AEP, IT)			
⚠J901	1-526-818-11	INLET, AC (~AC IN) (CFD-30:E)			
		< COIL >			
L101	1-410-322-11	INDUCTOR	3.3uH	(CFD-20:AEP, IT)	
L203	1-410-515-11	INDUCTOR	33uH	(CFD-20:AEP, IT)	
L301	1-410-322-11	INDUCTOR	3.3uH	(CFD-20:AEP, IT)	
		< COIL >			
⚠LF901	1-424-664-11	COIL, CHOKE			
**********					
*	1-636-789-13	MOTOR BOARD			
		**********			
	1-564-722-11	CONNNECTOR, 6P			
S201	1-572-085-11	SWITCH, LEAF (LIMIT)			

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
		< TRANSISTOR >	
Q210	8-729-200-38	TRANSISTOR 2SC2236-0	
Q211	8-729-283-42	TRANSISTOR 2SB856-02	
Q212	8-729-230-79	TRANSISTOR 2SD880-YGR	
		< RESISTOR >	
R130	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R131	1-249-423-11	CARBON 3.3K 5% 1/4W F	(CFD-20:US, CND/CFD-30)
R181	1-249-410-11	CARBON 270 5% 1/4W F	
⚠R182	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	
R183	1-247-807-11	CARBON 100 5% 1/4W	
R271	1-249-417-11	CARBON 1K 5% 1/4W F	
R272	1-249-408-11	CARBON 180 5% 1/4W F	
R273	1-249-437-11	CARBON 47K 5% 1/4W	
R274	1-249-411-11	CARBON 330 5% 1/4W	
⚠R275	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	(CFD-20:US, CND/CFD-30)
⚠R275	1-217-641-00	FUSIBLE 4.7 5% 1/4W F	(CFD-20:AEP, IT)
R330	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R331	1-249-423-11	CARBON 3.3K 5% 1/4W F	(CFD-20:US, CND/CFD-30)
R381	1-249-410-11	CARBON 270 5% 1/4W F	
⚠R382	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	
R383	1-247-807-11	CARBON 100 5% 1/4W	
		< SWITCH >	
S105	1-692-179-11	SWITCH, PUSH (BASS BOOST)	
**********			
*	1-644-450-11	REC SW BOARD (CFD-20)	
		**********	
		< CONNECTOR >	
* CN111	1-695-175-11	CONNECTOR 3P (CFD-20)	
		< SWITCH >	
S202	1-692-180-11	SWITCH, PUSH (1 KEY) (REC/PB)	
**********			
*	1-644-449-11	REC SW (RVS) BOARD (CFD-30)	
		**********	
		< CONNECTOR >	
* CN111	1-695-148-11	CONNECTOR 3P (CFD-30)	

Ref. No.	Part No.	Description	Remarks
		< SWITCH >	
S202	1-692-180-11	SWITCH, PUSH (1 KEY) (REC/PB)	
**********			
*	A-3262-693-A	TUNER BOARD, COMPLETE	
		**********	(CFD-20:US, CND/CFD-30)
*	A-3264-627-A	TUNER BOARD, COMPLETE (CFD-20:AEP, IT)	
		**********	
	3-380-070-01	KNOB, LEVER	
	3-380-070-11	KNOB, LEVER	
	3-380-070-21	KNOB, LEVER	
	3-380-075-01	PULLEY GEAR	
	7-685-133-19	SCREW +P 2.6X6 TYPE2 SLIT	
		< CAPACITOR >	
C1	1-162-206-31	CERAMIC 20PF 5% 50V	(CFD-20:US, CND/CFD-30)
C1	1-162-208-31	CERAMIC 24PF 5% 50V	(CFD-20:AEP, IT)
C2	1-102-959-00	CERAMIC 22PF 5% 50V	(CFD-20:US, CND/CFD-30)
C2	1-102-960-00	CERAMIC 24PF 5% 50V	(CFD-20:AEP, IT)
C3	1-162-195-31	CERAMIC 4.7PF 10% 50V	(CFD-20:US, CND/CFD-30)
C3	1-162-193-31	CERAMIC 3.3PF 10% 50V	(CFD-20:AEP, IT)
C4	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C5	1-124-034-51	ELECT 33uF 20% 16V	
C6	1-162-287-31	CERAMIC 270PF 10% 50V	
C7	1-124-126-00	ELECT 47uF 20% 10V	
C8	1-124-925-11	ELECT 2.2uF 20% 100V	
C9	1-124-126-00	ELECT 47uF 20% 10V	
C10	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C11	1-124-927-11	ELECT 4.7uF 20% 100V	
C12	1-124-903-11	ELECT 1uF 20% 50V	
C13	1-130-484-00	MYLAR 0.012uF 5% 50V	
C14	1-130-484-00	MYLAR 0.012uF 5% 50V	
C15	1-124-903-11	ELECT 1uF 20% 50V	
C16	1-124-902-00	ELECT 0.47uF 20% 50V	
C17	1-124-927-11	ELECT 4.7uF 20% 100V	
C18	1-124-907-11	ELECT 10uF 20% 50V	
C19	1-124-463-00	ELECT 0.1uF 20% 50V	
C20	1-124-463-00	ELECT 0.1uF 20% 50V	
C21	1-102-942-00	CERAMIC 5.0PF +-0.5PF 50V	(CFD-20:US, CND/CFD-30)
C21	1-162-198-31	CERAMIC 8.2PF 10% 50V	(CFD-20:AEP, IT)

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

TUNER

Ref. No.	Part No.	Description	Remarks
C23	1-162-294-31	CERAMIC 0.001uF 10% 50V	(CFD-20:US, CND/CFD-30)
C23	1-161-044-00	CERAMIC 0.0027uF 10% 25V	(CFD-20:AEP, IT)
C29	1-162-199-31	CERAMIC 10PF 5% 50V	(CFD-20:US, CND/CFD-30)
C34	1-162-193-31	CERAMIC 3.3PF 10% 50V	
C41	1-161-379-00	CERAMIC 0.01uF 20% 25V	
		< FILTER >	
CF1	1-567-198-71	FILTER, CERAMIC	(CFD-20:US, CND/CFD-30)
CF2	1-567-163-11	FILTER, CERAMIC	(CFD-20:US, CND/CFD-30)
CF3	1-527-870-00	FILTER, CERAMIC	(CFD-20:US, CND/CFD-30)
		< CONNECTOR >	
* CN1	1-695-157-11	CONNECTOR 2P	(CFD-20:US, CND/CFD-30)
* CN3	1-695-136-11	CONNECTOR 5P	
		< VARIABLE CAPACITOR >	
CT1-4 VC1-4	1-151-624-11	CAP, VAR, POLYETHYLENE	(CFD-20:US, CND/CFD-30)
		< DIODE >	
D1	8-719-107-94	DIODE 1SS202-1	
D2	8-719-107-94	DIODE 1SS202-1	
D3	8-719-938-69	LED SLR-34VR3F	(FM STEREO)
		< FILTER >	
FL1	1-236-895-11	FILTER, BAND PASS	
		< IC >	
IC1	8-752-050-20	IC CXA1238S	
		< COIL >	
L1	1-460-118-11	COIL (WITH CORE)	
L2	1-406-393-11	COIL, FM OSC	
L3	1-402-508-11	ANTENNA, FERRITE-ROD (MW)	(CFD-20:US, CND/CFD-30)
L3	1-402-623-11	ANTENNA, FERRITE-ROD (MW)	(CFD-20:AEP, IT)
L4	1-406-040-00	COIL (OSC)	(CFD-20:US, CND/CFD-30)
L4	1-406-040-00	COIL (OSC)	(CFD-20:AEP, IT)
		< RESISTOR >	
R1	1-249-441-11	CARBON 100K 5% 1/4W	
R2	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R3	1-249-415-11	CARBON 680 5% 1/4W	F
R4	1-247-807-11	CARBON 100 5% 1/4W	
R5	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R6	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R7	1-247-887-00	CARBON 220K 5% 1/4W	
R8	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R9	1-247-887-00	CARBON 220K 5% 1/4W	
R10	1-249-429-11	CARBON 10K 5% 1/4W	
R11	1-249-398-11	CARBON 27 5% 1/4W	F (CFD-20:AEP, IT)
R12	1-249-411-11	CARBON 330 5% 1/4W	
R16	1-249-433-11	CARBON 22K 5% 1/4W	
R17	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R22	1-249-415-11	CARBON 680 5% 1/4W	F
R29	1-249-400-11	CARBON 39 5% 1/4W	F
R40	1-249-429-11	CARBON 10K 5% 1/4W	(CFD-20:US, CND/CFD-30)
R40	1-249-427-11	CARBON 6.8K 5% 1/4W	F (CFD-20:AEP, IT)
R41	1-249-429-11	CARBON 10K 5% 1/4W	(CFD-20:US, CND/CFD-30)
R41	1-249-427-11	CARBON 6.8K 5% 1/4W	F (CFD-20:AEP, IT)
R59	1-249-425-11	CARBON 4.7K 5% 1/4W	F (CFD-20:US, CND/CFD-30)
		< VARIABLE RESISTOR >	
RV1	1-241-931-11	RES, ADJ, CARBON 22K	
		< SWITCH >	
S1	1-692-172-11	SWITCH, LEVER (BAND)	
		< TRANSFORMER >	
T1	1-404-925-11	IFT, AM	

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MISCELLANEOUS

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102	1-696-020-11	CABLE, FLAT
104	1-636-789-13	MOTOR BOARD
123	1-644-031-11	PC BOARD, CD LEAF SW
⚠405	8-848-137-11	PICKUP, OPTICAL KSS-210B
ANT1	1-501-537-11	ANTENNA, TELESCOPIC
* CN205	1-695-057-11	WIRE, SPEAKER
* CN804	1-695-143-11	CONNECTOR 2P
* CNP102	1-695-174-11	CONNECTOR 4P (CFD-20)
* CNP110	1-695-562-11	CONNECTOR 6P (CFD-30)
* CNP110	1-695-563-11	CONNECTOR 4P (CFD-20)
* CNP701	1-695-170-11	CONNECTOR 8P
* CNP702	1-695-150-11	CONNECTOR 8P
HE901	1-543-558-11	ERASE HEAD (CFD-20)
HE901	3-379-192-01	ERASE HEAD ASSY (CFD-30)
HRP901	1-543-424-21	REC/PB HEAD (CFD-20)
HRP901	X-3365-055-1	REC/PB HEAD ASSY (CFD-30)

Note:
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Replace only with part number specified.

Note:
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Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
M701	X-2625-132-1	MOTOR GEAR ASSY (MB) (SLED)	
M702	X-2625-133-2	MOTOR ASSY, SPINDLE	
M901	3-379-148-01	MOTOR ASSY (REEL/CAPSTAN) (CFD-20)	
M901	3-379-149-01	MOTOR ASSY (REEL/CAPSTAN) (CFD-30)	
S201	1-571-556-11	SWITCH, LEAF (MAIN) (CFD-30)	
S201	1-572-394-11	SWITCH, LEAF (MAIN) (CFD-20)	
S203	1-571-745-11	SWITCH, LEAF (FWD/RVS) (CFD-30)	
S810	1-692-171-11	SWITCH	
SP101	1-544-743-11	SPEAKER	
SP301	1-544-743-11	SPEAKER	
⚠T901	1-450-970-11	TRANSFORMER, POWER (CFD-20:US, CND/CFD-30)	
⚠T901	1-450-985-11	TRANSFORMER, POWER (CFD-20:AEP, IT)	

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ACCESSORIES & PACKING MATERIALS

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⚠	1-557-287-11	CORD, POWER (CFD-30:E) (C&SA)	
⚠	1-575-131-11	CORD, POWER (CFD-20:AEP, IT)	
⚠	1-690-952-11	CORD, POWER (CFD-20:US, CND/CFD-30:US)	(C&SA)
*	3-379-618-01	CUSHION (UPPER)	
*	3-379-685-01	CUSHION (LOWER)	
*	3-379-619-01	INDIVIDUAL CARTON (CFD-20:US, CND)	
*	3-379-623-01	INDIVIDUAL CARTON (CFD-30)	
	3-754-849-21	MANUAL, INSTRUCTION (ENGLISH)	(CFD-20:US, CND, CFD-30)
	3-754-849-31	MANUAL, INSTRUCTION (FRENCH)	(CFD-20:CND)
	3-754-849-51	MANUAL, INSTRUCTION (SPANISH) (CFD-30:E)	(C&SA)
	3-754-849-61	MANUAL, INSTRUCTION (ENGLISH/SPANISH/ ITALIAN)	(CFD-20:AEP, IT)
	3-754-849-81	MANUAL, INSTRUCTION (CHAINESE (CFD-30:E)	(C&SA)
*	4-941-548-01	LABEL, CLASS (1) (CFD-20:AEP, IT)	

• Central & South American model is abbrevitated as C&SA.

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Ref. No.	Part No.	Description	Remarks

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HARDWARE LIST

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#1	7-685-648-79	SCREW +P 3X12 TYPE2 NON-SLIT
#2	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT
#3	7-682-546-04	SCREW +PTT 3X5 (S)
#4	7-682-149-15	SCREW +P 3X10
#5	7-685-647-79	SCREW, TAPPING
#6	7-621-255-40	SCREW +P 2X6
#7	7-685-133-19	SCREW +P 2.6X6 TYPE2 SLIT
#8	7-621-255-35	SCREW +BVTT 2X5 (S) (CFD-20)
#9	7-628-253-90	SCREW +PS 2.6X4
#10	7-621-255-15	SCREW +P 2X3
#11	7-621-255-55	SCREW, TOTSU P 2X8 (CFD-20)

Note:
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Replace only with part number specified.

Note:
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Ne les remplacer que par une pièce portant le numéro spécifié.

9-957-369-13
(Including -369-92)

Sony Corporation
General Audio Group

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CFD-20/30

SONY
SERVICE MANUAL

US Model
Canadian Model
AEP Model
CFD-20

US Model
E Model
CFD-30

CORRECTION-3

Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
45	*	A-3275-525-A	AUDIO BOARD, COMPLETE (CFD-20)	A-3262-694-A	AUDIO BOARD, COMPLETE (CFD-20)
	*	A-3275-524-A	AUDIO BOARD, COMPLETE (CFD-30) **********	A-3262-671-A	MOUNTED PCB, AUDIO (CFD-30)

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